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EDGE

DREAMCAST ■ PLAYSTATION ■ NINTENDO 64 ■ PC ■ ARCADE ■ ONLINE

PlayStation2

Exposed: the hardware, the software, the power…

Plus

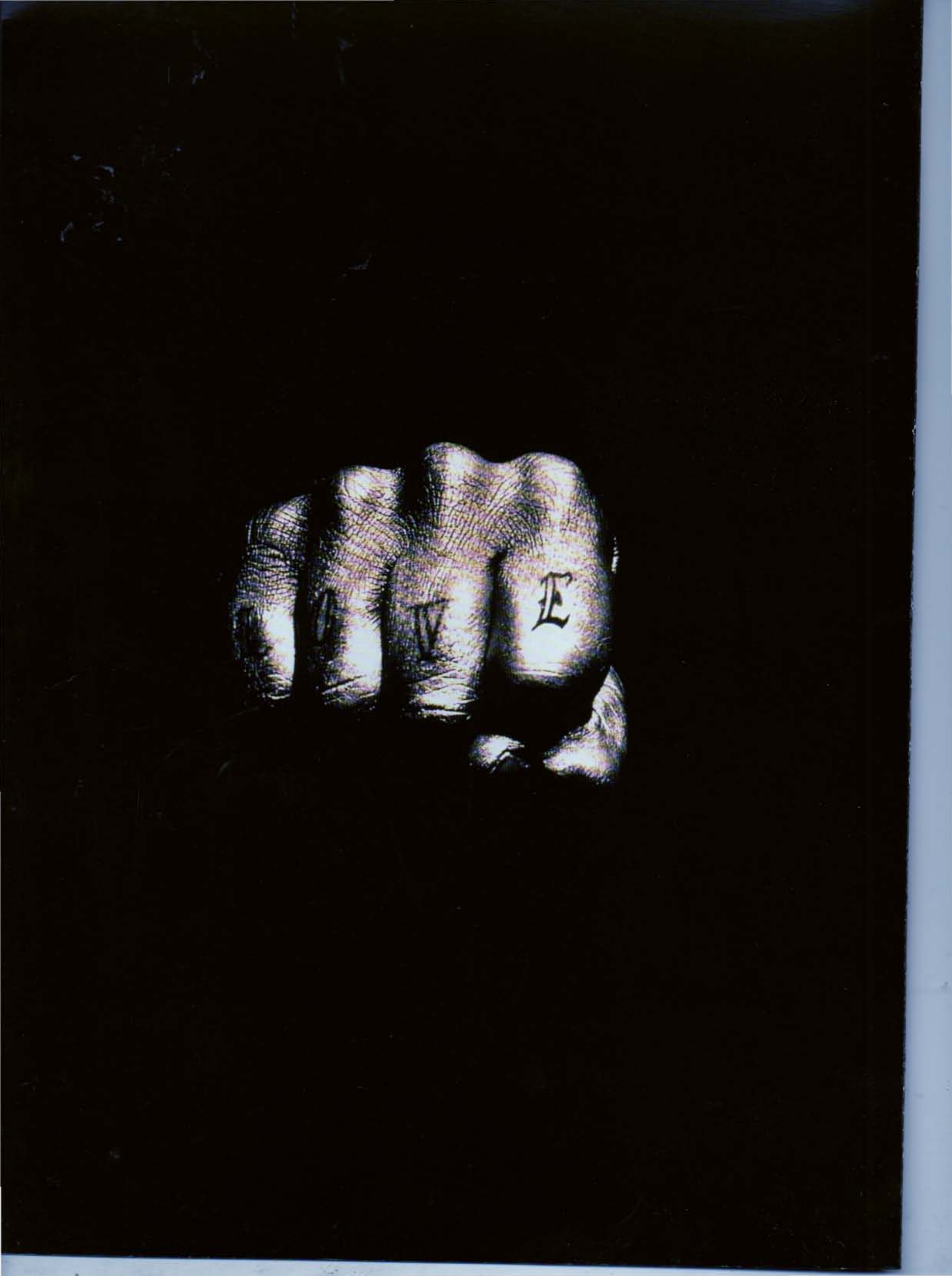
Dreamcast 2
ECTS, JAMMA & Spaceworld '99
Microsoft's X-Box
Shigeru Miyamoto
Howard Lincoln

Soldier of Fortune

Gore and weapons of war in Raven's bloody outrage

Reviewed

Final Fantasy VIII | Jet Force Gemini | Homeworld
Ready 2 Rumble Boxing | Cool Boarders Burrrn





What stark contrast between the image that adorned this page last month and the machine pictured above.

Despite the praise heaped upon the design of Sony's original PlayStation, the company has screwed up that aesthetic brief and thrown it out the window. Out goes the youth-friendly grey colour scheme. Out goes the warm, circular CD-drive lid motif. And out goes the simplicity, replaced by a groove-laden unit whose natural home would appear to be more the window display of a sniffy independent hi-fi retailer than the shelves of a branch of Electronics Boutique.

But PlayStation2 has at least something in common with interactive entertainment platforms gone by, notably Philips' CD-i and Panasonic's REAL 3DO Interactive Multiplayer. And, crucially, it's not only in giving its new console slinky black casing that Sony is treading familiar turf.

Consider this sentence from the editorial intro of **Edge** August 1994: 'Perhaps in years to come we'll see the PlayStation evolve into a multimedia station with a multitude of uses and all manner of peripherals'.

Now, finally, Sony is ready to attempt what others failed to do before it, to deliver a unit that will reach out far beyond the confines of mere videogames.

The multimedia set-top box has long been one of the consumer electronics industry's most infamous pipe dreams, and until recently it looked likely to remain just that. In one fell swoop, however, Sony has blustered in, offering DVD support as standard, i.LINK compatibility, and a plan for stable, widescale connectivity by 2001, leaving other hardware manufacturers gasping.

But what *of* the humble videogame, the very reason for **Edge**'s existence? Find out what Sony has planned on p6 onwards...

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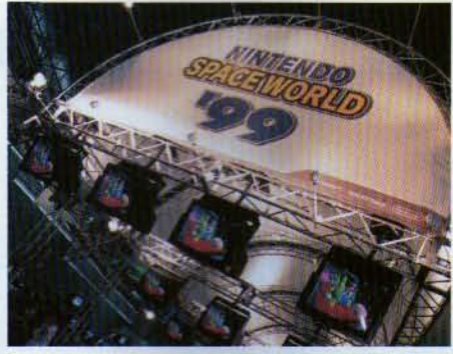
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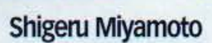
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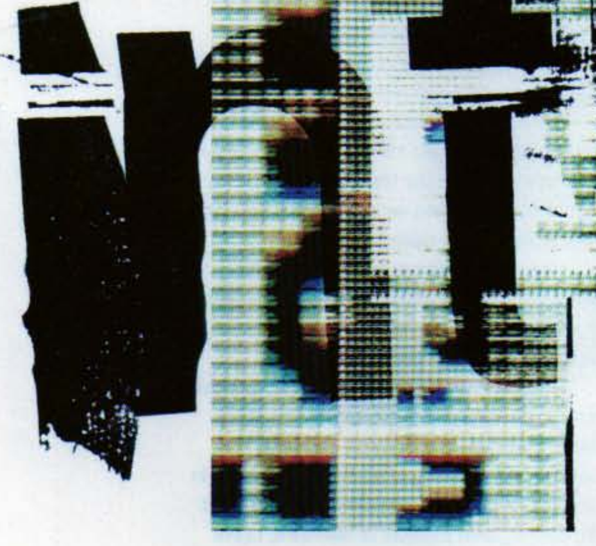




















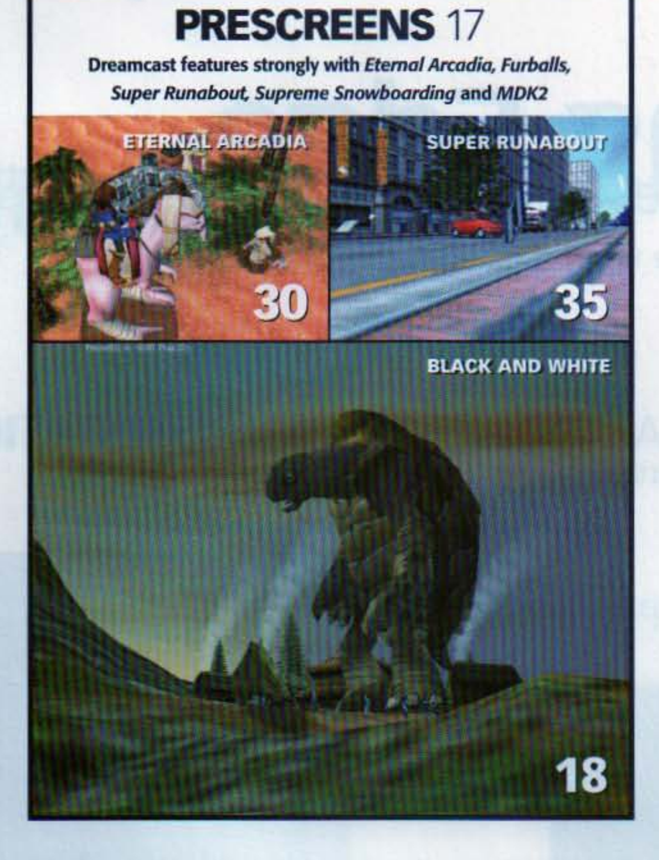

TESTSCREEN

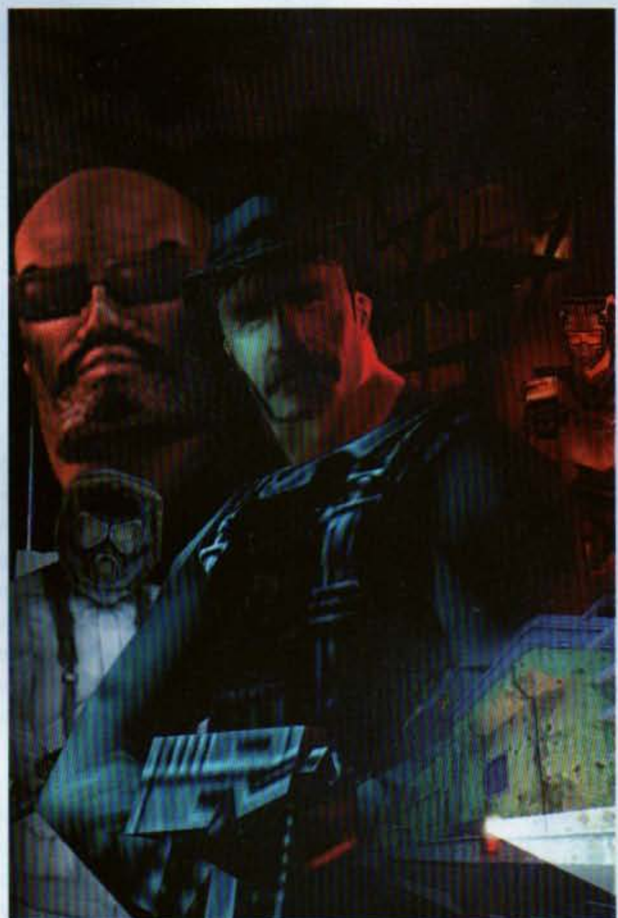
The planet's most honest, accurate videogame reviews



PRESCREENS 17

Dreamcast features strongly with *Eternal Arcadia, Furballs, Super Runabout, Supreme Snowboarding* and *MDK2*





SOLDIER OF FORTUNE 50

Fire and forget: inside the most controversial FPS ever



Space Channel 5 44

Sega gets groovy with a rhythm-action dancing and shooting oddity on Dreamcast

Cutting Edge

The latest news from the world of interactive entertainment

SONY SHAKES GAMING WORLD WITH PLAYSTATION2

Final hardware design, firm specs and first batch of games shown to receptive audience in Japan



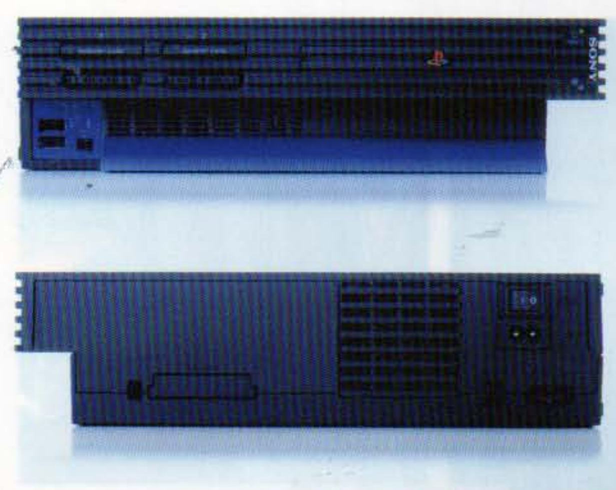


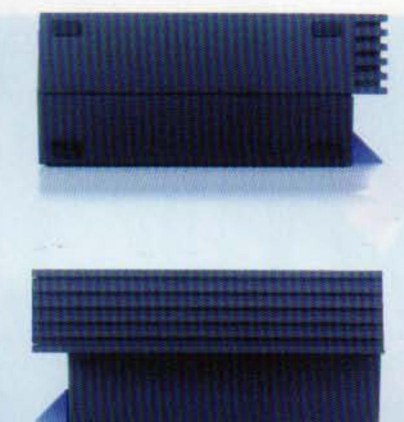
SCEI officially unveiled plans for its next-generation assault to a 900-strong crowd by showing its PlayStation2 console in Tokyo on September 13. The machine is set for Japanese release on March 4, at ¥39,800 (approx. £330), with a first week shipment target of one million units, making it the biggest launch of its kind to date.

In addition to the console, Sony announced the development of its Dual Shock 2 joypad (featuring analogue, velocity-sensitive buttons), and an 8Mb memory card (with a transfer rate up to 250 times faster than the current version), both backwardly compatible with the existing PlayStation and set to retail at ¥3,500 (approx. £20).

However, of greater importance to potential buyers is the console's DVD compatibility: as well as supporting audio CD, PlayStation CD-ROM, and PlayStation2 CD/DVD-ROM, the machine will play DVD movies out of the box. And the quality is exceptional: **Edge** viewed a demo DVD disk running on PS2 at the Tokyo Game Show, and the playback was of a standard equalling dedicated players in the £500 region. And, as with most dedicated players, PlayStation2 supports Dolby Digital and DTS (Digital Theatre Sound) audio formats via its optical digital output.

Sony's grand presentation took place in Tokyo's ANA Hotel near the district of Roppongi and was hosted by Ken Kutaragi, SCEI president and CEO. After confirming the







Measuring a compact 301mm(W)x178mm(D)x78mm(H) and weighing a reasonable 2.1Kg, the PS2 is initially an odd-looking device, certainly in terms of games consoles. Its blue 'feet' may be sold separately from the unit



The PS2 dev kit combines two separate operational modes in one unit: a regular PlayStation programming/debugging mode and a workstation mode which allows graphics creation within a PS2 development environment. A snip at ¥2,000,000 (£11,760)

console's name (ending months of tiresome speculation), Kutaragi-san focused on the markets being targeted by SCEI. The toy and videogame markets are obvious considerations, but the company expects a new sector, referred to as 'Computer Entertainment Market', to join the former two at a later date. Another emerging area is what Kutaragi-san calls the 'Networked Digital Entertainment Market', and it's one SCEI plans to enter in 2001. Broadband network Internet-based distribution of digital content via an Ethernet connection will allow PS2 owners to download data to hard-disc drives. Initially, the existing range of PlayStation and PlayStation2 games will be made available. An expansion module serving as a network adaptor (slotting into PS2's IEEE1394 port) will also be made available in 2001.

Software support

Also confirmed were 162 PlayStation2 licensees (89 in Japan, 46 in the US, 27 in Europe), along with a list of 84 titles in development – although Square has subsequently revealed that it has another six PS2 titles in production, several of which will be available at the machine's launch and some of which are related to the *Final Fantasy* series. (During a recent visit to Square's Tokyo HQ, **Edge** was shown a series of *FFVIII* cut scenes mixed in Dolby Digital which could be indicative of Square's PS2 developments. The existing PlayStation is unable to output a Dolby Digital signal, of course, so there would have been little point in remixing the sequences unless they would be used for a system with the requisite technology.)

After Kutaragi-san's speech, the curtains on either side of the auditorium were pulled back to reveal 12 PS2 units, all featuring playable software. At its most elegant when standing on its edge rather than lying flat, the angular unit is surprisingly small and resembles a slab of hi-fi technology rather than a games console, a direct indication of Sony's

PLAYSTATION2 SPECS (PRELIMINARY)

CPU	**128bit 'Emotion Engine'**
Clock frequency	294.912MHz
Main memory	Direct RDRAM
Memory capacity	32Mb
Graphics	**'Graphics Synthesiser'**
Clock frequency	147.456MHz
Embedded Cache VRAM	4Mb
Audio	**SPU2**
Number of voices	48 channel + software
Sound memory	2Mb
IOP	**I/O processor**
CPU core	PlayStation CPU+
Clock frequency	33.8688/36.864MHz (selectable)
IOP memory	2Mb
Disc drive	**CD/DVD-ROM**
Speed	CD: 24x
	DVD: 4x

At its most elegant when standing on its edge rather than lying flat, the angular unit is surprisingly small and resembles a slab of hi-fi technology rather than a games console, a direct indication of Sony's desire to tap into the mass market



Don't underestimate the power of marketing: PS2 discs receive a consumer-welcoming blue finish











SCEI president and CEO Ken Kutaragi (main) hosted the event, which revealed Sony's new target markets (above right). Most games on show were running on dev kits (top right). Dual Shock 2 (above centre)

Graphically, only a few games truly impressed. Namco's *Tekken Tag Tournament* and *New Ridge Racer* made perhaps perhaps the most impact, the latter displaying astonishingly solid-looking environments and highly detailed vehicles







GT2000 was still looking early: the cars are superbly detailed, but the tracks need work. Note the DVD-like packaging (left)

desire to tap into the mass market. Unexpectedly, only two joypad ports are offered (and, despite rumours, the two USB ports will not be used for joypad attachments, nor will the Dual Shock 2 pads be able to daisychain *à la* 3DO). Sony expects gamers seeking the multiplayer experience to use multitaps (existing versions are compatible) and claims that the decision not to include an extra two ports stems from a willingness to keep production (and hence retail) costs down.

Sony shows off

Many of the games displayed at the Tokyo Game Show were in true widescreen format (rather than the squeezed and stretched image usually adopted by PS games). *Gran Turismo 2000* was one of the panoramic examples, although some titles – Sony's *Dark Cloud* being an example – retained the full-frame 'pan and scan' ratio. Graphically, however, only a few of the games on display truly impressed. Namco's *Tekken Tag Tournament* and *New Ridge Racer* (both working titles) made perhaps the most impact (the latter displaying astonishingly solid-looking environments and highly detailed vehicles boasting realistic suspension travel as well as convincing smoke and spark effects), along with Square's *The Bouncer*, which threw an exciting amount of visual effects around, albeit only on looping video.

Crucially, every PS2 title is still too early in its development cycle for comprehensive assessments of the machine's power to be made. *GT2000* may offer all the playability of its

Highlights from Sony's confirmed PS2 catalogue

Grappler
Developer: Tomy



Unison
Developer: Tecmo



F-1
Developer: Video Systems



Wild Wild Racing
Developer: Imagineer



XFire
Developer: Electronic Arts Square



One on One Government
Developer: Jorudan



Sky Surfer
Developer: Idea Factory



Lakemasters Ex
Developer: Dazz



Billiards Master 2
Developer: Ask



American Arcade Pinball
Developer: Astroll

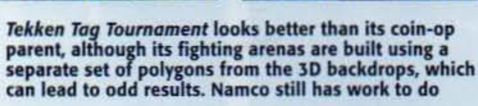












***Tekken Tag Tournament* looks better than its coin-op parent, although its fighting arenas are built using a separate set of polygons from the 3D backdrops, which can lead to odd results. Namco still has work to do**



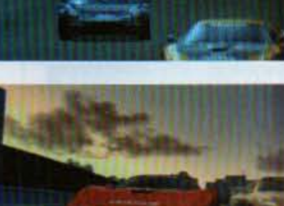
32bit brethren, but other than beautifully rendered (if perhaps excessively shiny) cars, the environments are a long way from finished, with road textures particularly low on quality. However, what was certainly clear was that just about every demo offered constant, glitch-free 60fps action, and fluid animation. The fact that the majority of PS2 launch games are likely to be little more than graphically enhanced PlayStation titles is not surprising. **Edge** has long feared that, due to time constraints, developers would not be able to fully exercise PS2's architecture for launch titles, leaving evolutionary games to carry the baton in the place of the truly revolutionary experiences promised by SCEI during its first PS2 announcement last March. Ironically, the later release date for territories outside of Japan will mean that the western launch dates could be the ones to really get excited about.

Available in the rest of Asia by the summer, PS2 will launch in the US and European markets in the autumn of next year. **Edge** expects the UK date to be Friday September 29, which would reflect the original PlayStation's Friday September 29 1995 release date.

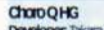








***New Ridge Racer* is graphically impressive, although its cars currently look as though they're floating around the tracks**



Choro Q HG
Developer: Takara



Roadsters Trophy 2000
Developer: Titus



Onimusha
Developer: Capcom



Catch Bass Club 2
Developer: Magical Company



IQ Remix
Developer: Sugar & Rockets Inc



Densen
Developer: SCEI



Fantavision
Developer: SCEI



Boku To Mach (The King and I)
Developer: Sugar & Rockets Inc



Popolocrois II
Developer: Sugar & Rockets Inc



Splash Dive
Developer: SCEI



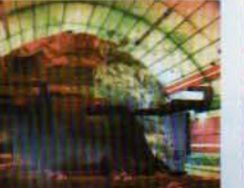
The power of PlayStation2: key Japanese titles unveiled

The Bouncer

Developer: Dream Factory





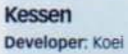





Shown at TGS in video-only form, Square's multiple-character action adventure with realistically reacting environments had myriad special effects with which to wow the crowds, including the now-obligatory 'Matrix'-like sequences. It's not clear how the game will work, however, but developer Dream Factory has a distinguished reputation.

Kessen

Developer: Koei




Also unplayable was Koei's samurai sim featuring an impressive amount of horse-riding warriors galloping towards another large group of similarly equipped warmongers. Once together, however, some rather subdued combat took place. Koei claims to be able to display three times the current amount of characters.

Armored Core 2

Developer: From Software







Currently expected to hit Tokyo's streets next summer, this sequel to the popular (in Japan) 3D mech combat title is looking intriguing. Not many details have emerged since its announcement, but upgradeable characters, realtime dynamic weather and realistic special effects feature during the 50-odd missions. A western release looks doubtful.

Jikkyou World Soccer 2000

Developer: Konami




Major A, the division of Konami responsible for its *International Superstar Soccer* series in its N64 incarnation, has been charged with creating this 128bit update. Konami has offered an enormous amount of early support to PS2 (as it did PS1), but this is set to be one of its biggest titles, with fantastic animation.

Street Fighter EX3

Developer: Arika












Arika has been working with PlayStation2 hardware for some time, and the results of its efforts are now coming to fruition. Arguably less visually impressive than *Soul Calibur* on Dreamcast (although the two games are differently styled), *SFEX3* remains a graphically interesting proposition, with a brace of graphical effects accompanying the action.

Gradius III and IV

Developer: Konami















Just when you thought Konami had forgotten about its legendary shoot 'em up series, the company pulls a surprise out of the bag with a full-3D update. On the face of it, Konami appears to be reworking versions three and four of *Gradius* (aka *Nemesis*), but gameplay details remain sketchy at best. Here's hoping it's not another *Galaxian*[3].

Dark Cloud

Developer: SCEI







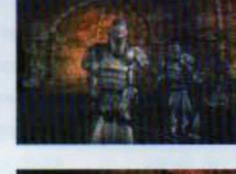


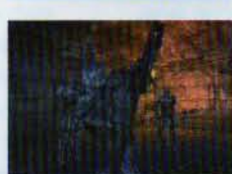
One of the first PS2 RPGs, *Dark Cloud* was shown in limited playable form at the recent TGS. The more impressive elements included some stunning water effects and great character animation. Impressive, too, was the way you could create your own villages from a topdown view and then zoom in close to view them in seamless realtime 3D.

Eternal Ring

Developer: From Software









Undoubtedly one of the earliest-looking yet playable PS2 titles at TGS, walking around mostly deserted environments, occasionally shooting fire balls into the distance meant *Eternal Ring* isn't especially thrilling at this point. Purportedly from the team responsible for the original PlayStation's *King's Field* series, the finished title should merit attention.

500GP

Developer: Namco





A conversion of the coin-op of the same name, *500GP* was looking suitably at home on PS2. The overhead camera sequences were particularly memorable but unless Namco improves on the arcade experience by improving the playability and adding a raft of home features, this could be a little bland.

A6

Developer: Artdink





The sequel to *AIV* (released early in the PlayStation's life), Artdink's city/train simulation is looking a little more accomplished than the last time it showed its face (see **E**73), and it received a fair amount of attention during Sony's presentation. Don't expect a revolution, however.

SEGA SHINES AS MUSIC STIFLES JAMMA '99

Only original titles stand out at the Japanese coin-op industry's traditional annual expo

The Japan Amusement Machine Manufacturers Association's 37th annual exhibition recently took place in Tokyo, attracting fewer exhibitors than ever, a disappointment that forced the organisers to welcome non-members to the event for the first time in its history.

Predictably, the rhythm-action genre dominated proceedings, with Jaleco, Atlus and Sega all jumping on the bandwagon. The real star of the show, however, was Naomi, which cropped up on just about every major stand.

Of all the companies in attendance, it was perhaps Sega that provided the most exciting and varied line-up. Yu Suzuki himself was on hand to show off *F355 Twin*, a new networked version of the incredible Naomi coin-op. The game uses one monitor rather than three, but that did not detract from its popularity. One of the key draws was its VMS compatibility. Instead of the printout option offered with the old model, *Twin* has a VMS slot allowing players to download their best times.

Equally interesting was the first airing of *Star Wars Episode 1 Racer*, currently in development with Software R&D#5. The game was only available to



The most unusual game at the show was Sega's *Typing of the Dead*, which requires words to be bashed out to vanquish foes











Sega's *Out Rigger*, offering joystick-and-trackball control, was one of the show's biggest hits (main). *World Kicks* offered another unconventional control method (top right). *Power Shovel Simulator* (right) was surprisingly fun

view via video, but it gave an early representation of the power of Sega's Model 4 board (showing mindblowing polygon-handling), which is believed to be set for debut at AOU next year.

Amongst Sega's other offerings was *Out Trigger* (see Arcadeview, p132), which proved hugely popular with showgoers, and *Emergency Call Ambulance*, in which players have to speed round New York, Chicago and Los Angeles rescuing people from accidents and dropping them off in safe places. A continuation of the 'panic' genre explored brilliantly in *Crazy Taxi*, the patient's heart rate serves as an energy gauge, so if they cop it, so do you.

Software R&D#3's *Jambo Safari*, meanwhile, has players careering around a game reserve trying to lasso 228 breeds of wild animal. The simple, open gameplay impressed everyone.

Finally, *Samba de Amigo*, from Software R&D#8 and Sonic Team, was introduced by Yuji Naka himself. It's a comedy rhythm-action game with a South American Samba vibe, featuring a dancing monkey as the lead character.

Playing for kicks

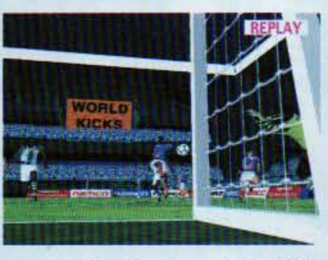
Disappointingly, Namco had little to show at the event. *World Kicks* is an odd fourplayer Naomi soccer game in which players actually kick a football at the base of the cabinet to control the onscreen equivalent. Unfortunately, the graphics are a little dated, and kicking the ball to pass, shoot *and* tackle proves a little confusing. Meanwhile, the third instalment in the *Time Crisis* series, *Crisis Zone*, was a little more promising. The game uses the same 'duck pedal' as its predecessors, but now offers a machinegun in place of a pistol, which takes away the precision element somewhat and drags the genre back to *Operation Wolf*. The only other Namco offering of note was an arcade version of *Um Jammer Lammy* featuring a similar cabinet to that used for *Guitar Jam*. Fun, but hardly revolutionary.

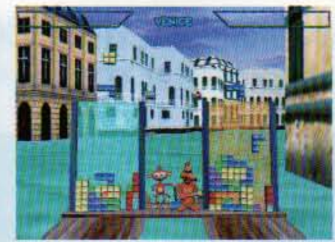
Of the many unusual titles at the show, Taito's *Power Shovel Simulator* was one of the most enjoyable. Sponsored by Komatsu, a famous Japanese construction machine manufacturer, the game has players using a vibrating power drill controller to perform a number of menial building-site chores. There are several skill levels, and completing the training mode gives access to a comedy mini-game in which you load trucks, destroy luxury cars, and rescue turtles. What amphibious creatures have to do with construction is anyone's guess, but it seems like Taito gave up on reality when it started this project anyway, and the results are winningly compulsive.

















Left to right by column: *Crisis Zone* was Namco's rather unconvincing follow-up to *Time Crisis*; *World Kicks* may have offered an innovative interface, but its graphics looked dated; *Sega Tetris*, from Software R&D#1, is the first coin-op *Tetris* title for 11 years; *Samba de Amigo* offered a monkey with maracas

An action and music mix

Capcom's main contribution this year was the Naomi conversion of hit comic and film character, *Spawn*. The game uses the same high-speed network feature as *Out Trigger*, but is aimed at a more hardcore audience, utilising complex controls and a camera system obviously influenced by that of *Ocarina of Time* (pushing a button reset the view behind main character). There was also a playable demo of *Strider 2*, although it's still too early to gauge the quality of this platforming actioner.

Music is still big at Konami despite the company's admissions that the BeMani market is finally slowing down. It is now attempting to push the concept abroad to get a new audience hooked. At the show, however, Konami was happy to show off *Dance Dance Revolution 3rd Mix*, *Pop'n'Music 2*, *Beatmania 5th Remix*, *Pop'n'Stage* and *Guitar Freaks 2*. There was also a new spin on *DDR* entitled *Dream Come True*, after a famous Japanese pop band. The game is pretty much standard *DDR* fare, but strictly uses the group's own songs. There was also a special karaoke version, allowing one person to sing into a mic while another dances along – a concept easily adaptable for overseas markets. The most interesting addition to Konami's music family, though, was *Rap Freaks*, which doesn't use a mic, as the title might suggest, but instead requires players to clap out a rhythm.

As for other attendees, Jaleco seemed completely unthreatened by Konami's recent legal actions concerning *VJ* and its similarities to *Beatmania*, as both *Rock'n'Tread 2* and *Steppin' Stage 2* were clearly influenced by *Dance Dance Revolution*. Meanwhile, *Audition*, a karaoke game in which players have to sing along in the correct key, was a little more innovative.

Of most interest to some of the more socially frustrated attendees was Tecmo's *Dead or Alive 2*. However, the gorgeous graphics and well-balanced gameplay of the title dashed the criticisms of those who've tagged it a cheap 'T'n'A' fighting game.

Ultimately it was little surprise that JAMMA '99 was dominated by so many music titles – much to the frustration of overseas distributors who have so far failed to find a hugely welcoming audience with such games in the west.

A wide, interesting and at times plain eccentric Sega line-up lit up the event, revealing a company currently on top of its game. For Dreamcast users, of course, the seemingly irrepressible rise of Naomi spells good news, with a raft of top-quality action titles set to hit the home in coming months.





Sega and Konami gave attendees something to shake thanks to *Samba de Amigo* (left) and *Rap Freaks* (right) respectively, two rhythm-action titles

JAMMA STATS

Each year, JAMMA compiles a report on the Japanese arcade industry. These are the highlights of the paper dated from April 1 1998 to March 31 1999, revealing less coin-ops in circulation, but a significant increase in turnover.

Operation income
Fiscal year '98: ¥62,890m (approx. £396m)
(FY '97: ¥64,434m; approx. £378m)

Number of machines
Fiscal year '98: 867,000 units
(FY '97: 881,000 units)

Number of operators by size
Fiscal year '98
Less than 50 machines: 34,506
Between 51 and 100 machines: 4,682
More than 101 machines: 3,986
Fiscal year '97
Less than 50 machines: 34,928
Between 51 and 100 machines: 4,320
More than 101 machines: 3,643

Game centres user profile
55.8 % of game centre users are male
56.9 % of users are over 21 years of age
7.9% of users visit game centres as a venue for dates
33.5% of users visit game centres one to three times a month (5.3% visit more than 26 times)
32.2% of players play between 30 minutes and one hour during each visit (11.3% play for more than three hours)

SPECULATION AND **3D CHIPS** DOMINATE **ECTS**

The aisles were buzzing as Sony and Nintendo ruled the floor but the real action happened elsewhere





With key players such as Sega, EA, Activision and Microsoft not present, the stage was set for smaller companies to make an impact at this year's ECTS

Nintendo played its ace, gracing the show floor with the presence of Shigeru Miyamoto, following up with the European debut of *Pokémon*





In the absence of Sega, distributor Gem attempted to maintain some sort of Dreamcast profile (top). ECTS was also the venue for the announcement of an ambitious new devco, Evolution Studios, headed up by ex-DiD man Martin Kenwright and erstwhile Psygnosis chief Ian Hetherington (above, left and right)

Attendance may have been up, but the real action at ECTS occurred on the peripheries. Instead of software ruling the headlines, the most exciting news was generated by the highly competitive graphics chip market. Nvidia and 3dfx displayed new technologies, with the sheer power of Nvidia's GeForce 256 card upstaging 3dfx's T-Buffer and FXT1 texture-compression technology. Meanwhile, rumours about Microsoft's X-Box briefings in the nearby Hilton Hotel focused post-show discussions.

Ironically, the major software announcement came from a US developer. Blizzard released details of *Warcraft III*. Other premieres included Westwood's *C&C: Renegade* and Geoff Crammond's *Grand Prix 3*.

On the show floor, Nintendo and Sony battled for most impressive stand plaudits with Sony's 'show within a show' concept coming up trumps. And while Dreamcast distributor Gem tried to fill the gap left by Sega's absence, many were left wondered about the wisdom of that decision.

Bizarrely, one of the show's best performers was SNK's Neo-Geo Pocket Color: such was the level of support that SNK pushed back the handheld's release in order to meet demand.

When it came to software, however, the majority of titles were shown behind closed doors. One of the best-designed corners was the Eidos-Konami-Take 2 enclave, with Konami's goldfish tanks being the show's most innovative architectural feature. It had at least one good game, too, with *ISS Pro Evolution* winning the ECTS 'best game' award. Take 2's GOD games also looked good – the thirdperson Norse action adventure *Rune* is already impressive, while *KISS: Psycho Circus* is intriguingly grotesque. Eidos also had a couple of exclusives up its sleeve with Danish-developed PC title *Hitman* demonstrating potential.

But, once again, the stalking horse that is *Black And White* stayed outside the show. Peter Molyneux remained as enthusiastic as ever to show off the ambition of his game, though. And the game of the 'private' show continues to look fantastic.

The most exciting news was generated by the highly competitive graphics chip market with Nvidia and 3dfx displaying new technologies

ECTS AWARDS

Best Game
ISS Pro Evolution, Konami
Best PC Game
Grand Prix 3, Hasbro
Best PlayStation Game
ISS Pro Evolution, Konami
Best Nintendo Game
Donkey Kong 64, Rare
Best Dreamcast Game
Ready 2 Rumble Boxing, Midway
Best Multiplayer Game
Rogue Spear, Red Storm

DREAMCAST 2 TECHNOLOGY CONFIRMED

VideoLogic continues partnership with Sega to provide next console's graphical grunt

An industry insider has revealed to **Edge** that VideoLogic, the creator of the PowerVR 2DC graphics chip in the existing Dreamcast, has already completed work on new graphics technology for use in a Dreamcast 2 unit. **Edge**'s contact spoke of "staggering" performance, but would not be drawn on specifics.

Sega has often referred to Dreamcast as a modular system, upgradeable as and when competing technologies or market conditions necessitated it, which makes this revelation of complete-replacement technology all the more remarkable. It would be folly, however, for Sega not to invest in further graphics technology development at VideoLogic, especially in light of the performance of Naomi, whose low-cost coin-op solution has proved extremely popular with both arcade game developers and operators.



While in Tokyo for TGS, Edge also played the latest build of *Shenmue*, which looks better than ever

Dreamcast DVD confirmed

In other Dreamcast news, Sega chose September 16 to confirm its plans for both DVD and Zip drive add-ons for the unit. The company would not be drawn on release dates, however, stating instead that the DVD unit would be introduced at an 'economically viable' point – something insiders have hinted may be as early as February in Japan. The unit will sit underneath the Dreamcast console.

Closer to home, Sega Europe has revealed that 18 titles will now accompany the PAL Dreamcast launch, thanks to the delay which pushes it back to October 14.

MICROSOFT TARGETS CONSOLE MARKET

With its X-Box strategy, the Redmond software giant is attempting a PlayStation 2 killer

Speculation that Microsoft is developing a PC-style console was all but officially confirmed during ECTS, after it became clear that developers were being briefed on the so-called 'X-Box'. Although Microsoft did not have a stand at the show, select groups were shown it at the nearby Hilton Hotel. All had to sign strict non-disclosure agreements.

Initial reports of the box were carried in the November issue of **Edge**'s sister publication, *Next Generation*. It detailed a modular console, designed to be a low-cost, upgradeable unit, matching the functionality and power of PlayStation2. The initial build of the DVD-based *WinCE* box is thought to be based on a 500MHz Intel CPU, using an Nvidia GeForce 256-based graphics card. It would also come equipped with a modem. Current PC vendors such as Dell and Gateway would sell their own versions of the box, with Microsoft overseeing the platform's development. Microsoft is already heavily involved in the set-top business, having unsuccessfully spent millions on its WebTV box.



Microsoft is planning to throw together a number of off-the-shelf components to deliver its X-Box technology

During ECTS, Stephen McGill, Microsoft's European games marketing manager, denied knowledge of the X-Box, but the presence of Ed Fries, general manager of Microsoft's games group, suggested, however, that something was afoot.

"All of us in the technology business are looking to diversify," **Jason Rubinstein**, Intel's director of games told **Edge**. When asked specifically about X-Box, he stated, "I wouldn't know about the rumour but it wouldn't surprise me."

Microsoft also recently signed a $5bn deal with AT&T to ensure that *WinCE* will be used in over 10 million AT&T set-top boxes. It has released a new version of *WinCE* for Dreamcast, too. To date, few developers have used the operating system to make games for the console.

CUTTINGS

Game Boy grows up
Connectivity is the key for the next version of the Game Boy. Currently known as Game Boy Advance, the new handheld will feature a 32bit processor and be backwards-compatible. It will also have the ability to connect to the Internet via a mobile phone, allowing users to exchange email and play online games. Furthermore, a joint venture called Mobile 21 has been announced with Konami to develop software to link it with Dolphin.

Vis' spending spree
It's been a busy few weeks for ambitious Scottish developer Vis Interactive. Not only is it buying original *Carmageddon* developer Stainless, but it has also put together a new studio called Vis kids, staffed by members from defunct developer Inner Workings.

Vis has injected £250,000 into Stainless but will also buy out SCi's 25.1% holding in the company. The *Carmageddon* licence will remain the property of SCi, however.

Codies get bigger
Codemasters has further demonstrated its considerable business acumen by signing a publishing deal with Scottish developer Red Lemon. Little information has been released, except that a multiple-platform priority game will be released in late-2000. Codemasters is also currently in the process of setting up its first American studio in Oakhurst, California.

Joint joypads
Peripheral manufacturer Ultimate Video Accessories has announced a controller add-on allowing PlayStation Dual Shock joypads to be used with Dreamcast. The so-called 'DreamStation' peripheral will allow PlayStation steering wheels to be used, too.

PRESCREEN

EDGE PREMIERES INTERACTIVE ENTERTAINMENT'S FRESHEST FACES

A human face for gaming

Better graphics won't enable emotion: more realistic characters are the key

The measure of Sony's marketing nous in naming the PlayStation2's CPU Emotion Engine is only now becoming apparent. It may be the biggest production chip in the world, but like every other slab of doped silicon, all it does is crunch strings of ones and zeroes into new sequences. After reading some breathless reports from the Tokyo Game Show, however, you'd be forgiven for thinking it contained some kind of emotion injection unit, providing all PlayStation2 titles with a special sprinkling of magic dust.

At a superficial level, ArtDink's *A-Train 6* and Konami's *Mahjong Yarouze!* will be the same as previous train simulation or traditional board-derived videogames. Even character-driven titles such as Square's *The Bouncer* aren't guaranteed to usher in a new level of experience. In that sense, the Emotion Engine is but a facade, a clever advertising ploy. In another respect, Sony's naming decision is crucial. PlayStation2 won't define the beginning of emotion in games, but it does mark the start of new possibilities of emotionally involved gaming. This won't be evoked by the ability to model the intricacies of cheek muscles moving as a face breaks into a smile *per se*, but PlayStation2 will provide developers with the opportunity to stimulate gamers' emotions. These tools will only be useful within a certain context, and the key is character.

Most games contain characters, of course, even if it's only Colin MacRae's name in the title. But to simulate emotion, the next generation of characters must be more than just physically distinct figures existing purely to enable special moves. Instead, they must become more ambiguous figures, living in a game experience that provides gamers with both the inclination and the opportunities to do more than just kill.

Yet there are some signs that developers are aware of the situation. Games such as *Black And White* and *Galleon* are attempting to create a context for well-rounded characters. After three games, each driven by FMV, even Westwood is exploring a playable character with a thirdperson title, *Command & Conquer: Renegade*.

With unit sales for PlayStation2 predicted to be in the hundreds of millions, any attempt to crack the real mass market will require characters to believe in. While *New Ridge Racer*, *Tekken Tag Tournament* and *GT2000* all have their place, emotionally they are backward-looking titles. Sony has opened the door: the future of gaming awaits.





Sony has highlighted the Emotion Engine but PlayStation2 games will only evoke emotions by relying on characters such as those in *Black And White* (left) but missing from *A6* (centre) and *GT2000* (right)

Edge's most wanted — Scanning for heat on the gaming horizon



Tekken Tag T'ment

(PS2) Namco

Tekken and the PlayStation go hand in hand, and this latest interpretation, irrespective of its wafer-thin premise, should kickstart PS2 with a splash.



Out Rigger

(Coin-op) Sega

A bunch of American entrepreneurs once attempted to put *Quake* into arcades, and failed. Sega is set to show them how it should be done.



The Bouncer

(PS2) SCEI

Edge was only able to view rolling footage of the title at the Tokyo Game Show, but that was enough to whet even the most sated of appetites.



Bio-Hazard 3

(PS) Capcom

Capcom's latest episode from Raccoon City is one of the year's hottest titles, thanks to the Nemesis. No wonder Capcom shares are at a 10-year high.

Index



PRESCREEN ALPHAS

BITE-SIZED PREVIEW CHUNKS, LEADING WITH WHAT SOME ARE ALREADY CALLING THE 'BEST GAME EVER CREATED'

BLACK AND WHITE

FORMAT: **PC** DEVELOPER: **LIONHEAD**





















The world's first 'roleplaying God game' is progressing very nicely according to Peter Molyneux, who was demonstrating it behind closed doors at the Hilton Hotel during ECTS. The functionality of the online aspect of the game is fully in place. Known as The Gathering, this non-persistent multiplayer environment will be the equivalent of an interactive chatroom for your creatures and will feature them lip-synching as they talk. Conversely, the major area to be completed for the singleplayer game remains the plot.

INTERNATIONAL TRACK & FIELD 2

Konami presented a playable version of this sequel to one of the best ever PlayStation multiplayer experiences at its diminutive booth at ECTS. In addition to the events of the original, six new activities – canoeing, springboard diving, cycling, gymnastic vault, weightlifting, and middle-distance running – have been included. The graphics have naturally improved, but the simple, stupefying addictive gameplay remains, of course. Expect a western release in November.





MICRO MACHINES 4

FORMAT: **PLAYSTATION** DEVELOPER: **CODEMASTERS**

Unveiled in playable form at ECTS, this new *Micro Machines* project disposes of vehicles to focus on inch-high bipedal entities called Maniacs. Naturally, fourplayer action is guaranteed, along with a variety of weapons and other features that Codemasters is currently holding close to its corporate chest. On present form, the potential here is huge.









TOCA WORLD TOURING CARS

FORMAT: **PLAYSTATION** DEVELOPER: **CODEMASTERS**







Aware that Codemasters was planning to announce the next PlayStation *TOCA* instalment at ECTS, **Edge** was curious as to how the team behind the project would attempt to introduce new elements to the series. The inclusion of touring car events from Japan, Europe, Australia, and South and North America will bring some much welcome variety to the game.

OUT RIGGER

FORMAT: **COIN-OP** DEVELOPER: **SOFTWARE R&D#2**

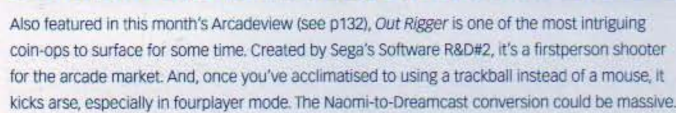












Also featured in this month's Arcadeview (see p132), *Out Rigger* is one of the most intriguing coin-ops to surface for some time. Created by Sega's Software R&D#2, it's a firstperson shooter for the arcade market. And, once you've acclimatised to using a trackball instead of a mouse, it kicks arse, especially in fourplayer mode. The Naomi-to-Dreamcast conversion could be massive.

STUNT GP

FORMAT: **PC/DREAMCAST** DEVELOPER: **TEAM 17**









Bringing back fond memories of Nintendo's *Stunt Race FX* on the SNES, Team 17's racer featuring radio-controlled stunt cars is hugely endearing. The courses (of which there are more than 24) encourage you to perform tricks by placing jumps, loops, corkscrews, spirals and other obstacles in your way. Of course, you're also expected to stay in front of your opponents. Hasbro expects to release the game in the first quarter of next year.

HALO

FORMAT: **PC/MAC** DEVELOPER: **BUNGIE**









One of the highlights of Nvidia's GeForce 256 press conference was the demonstration of *Halo*, a game which is highly anticipated and already rumoured to be a potential PlayStation2 title. And the wide open landscapes of the futuristic thirdperson shooter certainly seem to be made for the poly-pushing and lighting capabilities of the GeForce.

GALLEON

FORMAT: **PC** DEVELOPER: **CONFOUNDING FACTOR**



Although not playable at ECTS, Toby Gard and Paul Douglas were demonstrating a work-in-progress video behind closed doors. A resolutely singleplayer adventure experience, *Galleon* relies on strong characters, the heart of the game involving a love-triangle between the hero, Captain Rhame Sabrier, and two female characters, the sweet Faith and the ninja Mihoko. The short video sequence showed a malevolent character attempting to kill Rhame by directing him over a treacherous bridge.











WORLD'S SCARIEST POLICE CHASES DEADLY PURSUIT

FORMAT: **DREAMCAST** DEVELOPER: **TEENY WEENY**



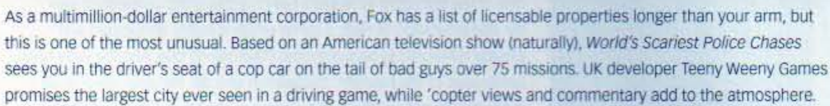












As a multimillion-dollar entertainment corporation, Fox has a list of licensable properties longer than your arm, but this is one of the most unusual. Based on an American television show (naturally), *World's Scariest Police Chases* sees you in the driver's seat of a cop car on the tail of bad guys over 75 missions. UK developer Teeny Weeny Games promises the largest city ever seen in a driving game, while 'copter views and commentary add to the atmosphere.

BIOHAZARD: GUNSURVIVOR

One of the surprise titles at the autumn Tokyo Game Show was this lightgun-powered spin on the horror game genre from Capcom. Unlike other lightgun titles, the title uses its realtime 3D engine to allow players to freely move within its eerie environments. The only restriction is that you cannot retreat, which hampers what might have been a thrilling experience. If Capcom can somehow address this limitation, the game will benefit immensely.





EVOLVA

FORMAT: **PC** DEVELOPER: **COMPUTER ARTWORKS**

Another title basking in the reflected glory of Nvidia's GeForce chip is *Evolva*, with technical director Mark Atkinson proudly demonstrating that, using the chip, *Evolva* has more ingame polys on screen than it had previously in its FMV cut-scenes. And although it's unlikely to ship until 2000, a demo bundle with Creative's GeForce board seems likely.











C & C: RENEGADE

FORMAT: **PC** DEVELOPER: **WESTWOOD**

Inspired by the small-scale commando missions of its popular RTS series, Westwood's brand extension bring the action into the realms of single character with a third-person perspective. Multiplayer will still be supported though, with the 15 mission areas featuring enormous indoor and outdoor environments.









STREET FIGHTER EX3

FORMAT: **PLAYSTATION2** DEVELOPER: **ARIKA**







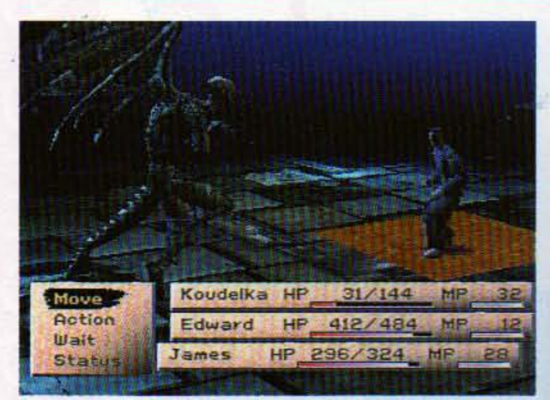


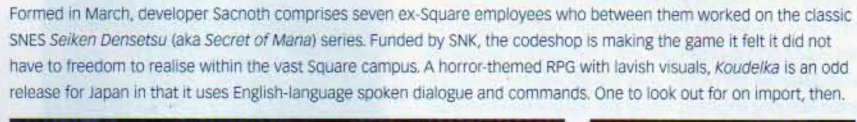


More screenshots from the first (inevitable) *Street Fighter* title for Sony's PlayStation2. Although these images capture the flavour of Capcom's firmly established set of characters (Chun-Li and Blanka among them), the game looks odd. A crisp resolution obviously makes for better detail, but there's no denying the clinical feel of the whole affair. Time will tell.

KOUDELKA

FORMAT: **PLAYSTATION** DEVELOPER: **SACNOTH**



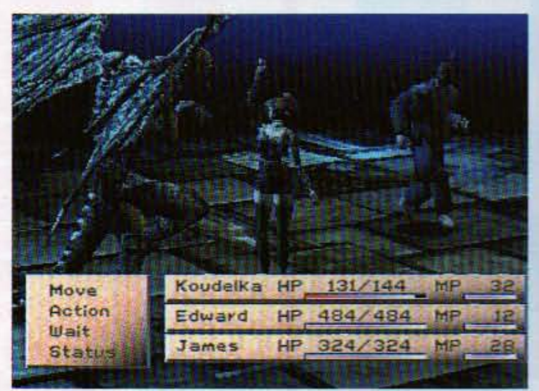


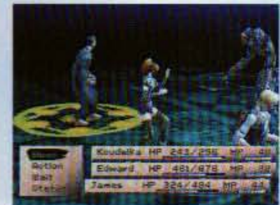
Formed in March, developer Sacnoth comprises seven ex-Square employees who between them worked on the classic SNES *Seiken Densetsu* (aka *Secret of Mana*) series. Funded by SNK, the codeshop is making the game it felt it did not have to freedom to realise within the vast Square campus. A horror-themed RPG with lavish visuals, *Koudelka* is an odd release for Japan in that it uses English-language spoken dialogue and commands. One to look out for on import, then.

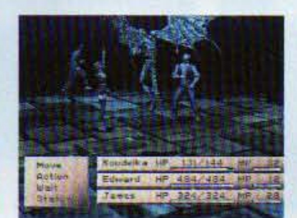














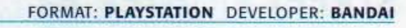
BIO-HAZARD 3: LAST ESCAPE

Recent exposure to Capcom's latest episode of survival horror has proved it to be a far more action-packed game than previous titles. Weapons that kill with a single shot are in great supply, which is helpful considering the numbers of zombies on-screen, although going the whole hog with the gatling gun remains the more enjoyable option. Less satisfactory, though, are the scripted options provided during certain cut scenes.





COUNTDOWN VAMPIRE



FORMAT: **PLAYSTATION** DEVELOPER: **BANDAI**

With 100 sections and 15 minutes of prerendered CG sequences, *Countdown Vampire* is aimed squarely at *Resident Evil* fans. Not only are the enemies here affected by the game's moon cycle, but also the player's blood type (entered before playing), which influences the evil forms they morph into.











More is less

MEDIEVIL 2

Following in the footsteps of *G-Police 2* comes another safe sequel option from Sony Europe's considerable development resources. While the first *Medievil* swiped some worthwhile ideas from the *Zelda* series, it ultimately failed to gel as a convincing whole. With this follow-up, SCEE's Cambridge studio is offering a new weapon system, allowing two instruments of pain to be wielded simultaneously. Other enhancements remain a mystery.





BLOOD AND LACE

Recently shown at ECTS was Italian developer GMM Entertainment's take on the gothic horror genre. Boasting beautiful and atmospheric backgrounds, the plot of *Blood and Lace* revolves around a mysterious occult text, the Picatrix, lost in 18th century Paris. With both PC and Dreamcast versions in development, the game should be ready for release by the end of the year, although no publisher has yet been signed.





EVOLUTION 2

FORMAT: **DREAMCAST** DEVELOPER: **STING**

As one of the first titles to enjoy life on Dreamcast in Japan, the original *Evolution* was far from being a convincing RPG, although claims that the title was rushed in order to give Sega's first wave of software as much diversity as possible may carry some weight. Sting is no doubt pulling out the stops in an effort to make this sequel a more complete game.









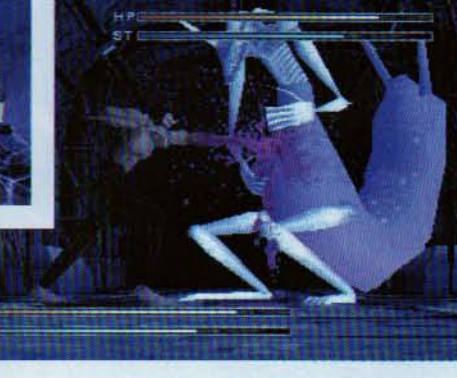


DEVIL MAN

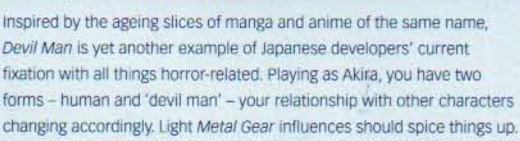
FORMAT: **PLAYSTATION** DEVELOPER: **BANDAI**











Inspired by the ageing slices of manga and anime of the same name, *Devil Man* is yet another example of Japanese developers' current fixation with all things horror-related. Playing as Akira, you have two forms – human and 'devil man' – your relationship with other characters changing accordingly. Light *Metal Gear* influences should spice things up.



ETERNAL ARCADIA

Sega's first Dreamcast RPG is an ambitious take on the high-seas adventure yarn, except that here the ships fly and the ocean is a totally 3D skyscape





The *Eternal Arcadia* team has gone for a bright, vibrant look, partly to attract RPG novices, perhaps put off by the often dark nature of this established genre

The action takes place on a series of floating islands which seem to take their inspiration from a mix of standard RPG and Tolkien sources

Format: **Dreamcast**

Publisher: **Sega**

Developer: **In-house**

Release: **Spring (Japan)**

Origin: **Japan**

Once the excitement of those first-generation beat 'em ups and racing games subsides, every platform needs its classic RPG series to survive. *Final Fantasy*, *Wild Arms* and *Vandal Hearts* have all done immeasurable good for the PlayStation, just as *Final Fantasy*, *Secret of Mana* and *Dragon Quest* once kept the SNES buoyant. With the RPG, the classical elements of story and characters, rather than visuals, serve to attract fanatics. PS2 may boast graphical athleticism beyond that of Dreamcast, but if Sega can set the foundations of an epic series now, it could have many thousands of swords'n'sorcery fans on board for the duration.

This may well be the thinking behind *Eternal Arcadia*. Produced by Rieko Kodama, who previously worked on *Phantasy Star* (and was a designer on the first *Sonic* title), *Eternal Arcadia* is billed as a truly epic roleplaying adventure set in a mythical realm of floating islands and inhabitable clouds. The game, which revolves around a buccaneer explorer named Vyse, is essentially a reworking of all those old stories of pirates and hidden treasures, but here the boats fly and the ocean is a totally 3D skyscape.

It's a pretty astute set-up. Flying ships have a firm place in Japanese RPG tradition, while the Columbus era of discovery – which the plot allegedly mimics – is ripe with possibilities (*PowerStone* and *Soul Calibur* having recently shown how 'ye olde sea-faring' imagery can spice up a familiar genre). However, while it is known that Vyse is a 'good pirate' who must do battle with bad pirates as he explores the skies for new lands, little else is known about the story. Sega is, characteristically, keeping its cards close to its treasure chest.

One thing about this project is clear, though – it is massively ambitious. It may even be an attempt to redefine the RPG for a whole new age. Consequently, the designers claim not to have been influenced by any other RPG titles (although, naturally, they have played them all),





Each race within the game has its own ship designs (above), and each boat has different strengths, weaknesses and weapons. The pirate look is popular



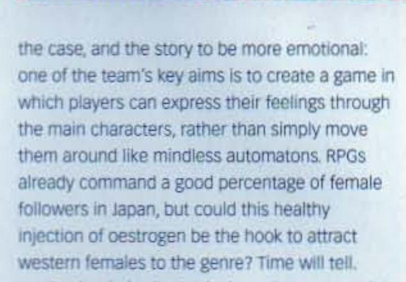




***Eternal Arcadia* is set to include some stunning special effects, most of which will be triggered through the use of magic and weapons**



Giant snails aren't the least bit unusual for an RPG, but *Eternal Arcadia* at least renders them with no small amount of flair (above)



as what they're attempting to do is create an innovative new game system and, more importantly, one which can be picked up by newcomers to the genre. Which is perhaps why many of the team have been drawn from Sega's Software R&D #7 department – a squad that works on simulations and adventures as well as RPGs. Kodama-san is looking for fresh perspectives on this most esoteric of gaming styles. She's looking for the next *Final Fantasy*.

Gender is also an issue here. Not only is the producer female, but a large percentage of the development team is, too. As a result, you can expect the female characters in *Eternal Arcadia* to be more realistically depicted than is usually the case, and the story to be more emotional: one of the team's key aims is to create a game in which players can express their feelings through the main characters, rather than simply move them around like mindless automatons. RPGs already command a good percentage of female followers in Japan, but could this healthy injection of oestrogen be the hook to attract western females to the genre? Time will tell.

But battle is also intrinsic to the genre and it's not being sidelined here. The team is planning some massive encounters, not just between individual characters, but between boats and even armadas, recreating the epic encounters the literary genre of seabound swashbuckling is famous for. It will also be possible to use magic and special attacks in the game, both of which are set to be accompanied by glossy effects.

Not only is the **producer of the game female,** but a **large percentage** of the **development team** is, too



The sky is a completely navigable 3D space, giving unprecedented freedom to the gamer. The plot still follows a linear route, however

As for gameplay, although *Eternal Arcadia* is not a free-roaming multi-scenario RPG, the designers don't want players to feel hemmed in by an obviously linear narrative. Kodama-san and co want this to be a bright, vibrant world – a world of possibilities rather than instructions. Ships are thus piloted in real time, with players moving from island to island as they see fit.

Eternal Arcadia certainly has its sights set on grandiose achievements. The map is gargantuan, the sky can apparently be navigated in true 3D, and the designers are even considering some kind of modem support option – multiplayer roleplaying *à la Ultima Online*? It's possible. With this and *Shenmue* on the horizon, **Edge** wonders what reposte Square has in store on PS2. The possibilities are reaching beyond all previously known parameters. For RPG fanatics, it's a great time to be alive.

SUPREME SNOWBOARDING

It's no surprise that one of the hottest-looking snowboarding titles should come out of Finland, a country renowned for its relationship with the white stuff



Naturally, performing tricks is an essential requirement. Over 100 varieties are offered as standard, although developer Housemarque claims that players will be able to add their own. Furthermore, it is incorporating varying depths of snow

Edge first saw what is now known as *Supreme Snowboarding* over 17 months ago in Atlanta during the 1998 E3 show. At that time, Finnish developer Housemarque had but a technical demo with which to lure potential publishers to the frills-free stand it was sharing with other advocators of PC 3D technology.

By tech-demo standards the short but playable level that featured a snowboarder surfing down the side of a mountain was highly advanced, already demonstrating more playability than a lot of near-finished games present at the show. But as **Edge** trundled off to the next scheduled appointment, Housemarque was no nearer finding a partner.

Now in Infogrames it has certainly found one. Keen to maximise the game's profitability (the PC games arena currently not being the most predictable of markets), the French publishing giant has been quick off the mark in commissioning a Dreamcast conversion.

This can only be good news for those snowboarding Dreamcast owners who currently have only UEP System's rather lacklustre *Cool Boarders Burrrn* (see p94), for *Supreme Snowboarding* is looking very promising indeed.

With around **100 tricks** as well as a system allowing you to **add your own**, *Supreme Snowboarding* **deserves to be taken seriously**

The finished game will offer the usual format for a title depicting this kind of sport. In addition to the familiar stunt-friendly half-pipe option, big-air and race modes are also available. Considering that the game can be played (on PC) using a force-feedback joystick, pulling off tricks is a simple combination of button and direction commands and one that proves surprisingly

Format: **DC/PC**
Publisher: **Infogrames**
Developer: **Housemarque**
Release: **November 26**
Origin: **Finland**





Housemarque intends to include superfluous touches such as rippling clothes. The designers of *1080°* must be wondering what they started...



The course detail is great, as this aircraft landing area reveals. Lighting is just one area where Housemarque, developer of shooter *Super Stardust*, excels



The six characters are your usual bunch of slacker snowboard 'dudes', although there is the possibility of one unusual individual making an appearance

intuitive. On Dreamcast, given that a specific (and standard) controller exists, expect the control method to benefit from the possibility of multi-button function assignment.

In total, six characters are selectable and are suitably attired as the cool 20-something types usually associated with the snowboarding. However, one character stands out as a Heihachi (of *Tekken* fame) lookalike, and a rather mean boarder he is too. Whether or not he makes the final code remains to be seen, but it would be a shame to lose him, particularly as few games nowadays bother to offer characters of any real distinction.

The association with Infogrames is probably also partly responsible for the boards now available to the riders. Real brands Nidecker, Rossignol and Salomon have all lent their names to the polygonal interpretations of their respective snowboards. While this has no direct influence on gameplay, it will no doubt add a certain amount of credibility within some circles.

More crucial to the game's play mechanics though are the actual courses. Nine exist – split into alpine, forest and village themes, with a trio of pistes increasing in difficulty for each of them – and rather than being forced down a predetermined and unrealistically narrow route, you're free to go down the slope within the generous 2Km-square area as you see fit. The extension of the usual restrictive boundaries should not be overlooked. It is little coincidence that the best course on the N64's splendid *1080°* is the most open of the pack.

Technically, Housemarque knows its stuff. Realtime tessellation allows an impressive amount of scenery to be seen with the rarest discernible build-up evident only on the most ambitious display of polygons. The result is that the all-important solid-environment feel is well maintained throughout. Furthermore, the animation of the riders is convincingly accomplished, while shadows are another immediately noticeable aspect.

But let's not remove *1080°* from the top spot just yet. With around 100 tricks on offer as well as a system allowing you to add your own, a healthy dose of expansive courses and graphical wizardry, together with the promise of much attention to detail, *Supreme* certainly deserves to be taken seriously in a genre rapidly headed towards saturation point. But snowboarding games live or die on control, and fine-tuning this aspect will be Housemarque's priority in the run up to release.



Nine courses, split over alpine, forest and village areas, are available for selection



Replays reveal Housemarque's technical nous, and allow the action to be viewed from several angles at variable speeds

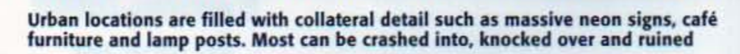



RUNABOUT 2

Climax's superior urban driving concept is back after a three-year rest, and now offers a larger, more realistic world for its eccentric mission-based action






Urban locations are filled with collateral detail such as massive neon signs, café furniture and lamp posts. Most can be crashed into, knocked over and ruined



Veterans of the original *Runabout* will no doubt recall the odd little scooter it offered. The sequel beefs things up...



The map in the corner of the screen advises players on possible routes. This sequel features many more options than the original title, adding much to its potential

Although *Driver* has recently grabbed plaudits for its innovative design, it was *Runabout* (renamed *Felony 11-79* in the west) that truly introduced PlayStation owners to the mission-based urban driving game.

Released three years ago, the title challenged players to get from one end of each course to the other in the fastest possible time, in vehicles ranging from sports cars to coaches. Each of the multi-route maps took in crowded city streets, as well as country lanes and cliff-edge tracks, and the vehicles would crumple and deform when smashed against walls and other road users. Does any of this sound familiar?

Finally, Climax has got around to crafting a sequel, and the game's fans will be pleased to hear that it's more of the same. Much more.

The basic concept remains intact: drive your vehicle very quickly from one place to another. Here, though, the five new environments have many more route possibilities to explore, and there are new, more varied missions.

You might have to find an object before the enemy cars find you, or reach a goal within a certain time limit – whatever the case, there are up to 13 such missions for each environment, so there's a lot more game in there than there was before. To explain the action, there's also a real story this time, while the cities are more realistic, with roadworks, crowds of pedestrians and severe congestion adding extra challenges.

As for vehicles, there are four standard start-up cars, but success in missions will open up another 27. Interestingly, players will be given the opportunity to swap cars during a mission – something you couldn't do in the first title – giving the potential to make tactical choices, such as using a coach to smash through the city before hopping into a sports car for quiet country lanes. To help in the planning of a mission, players will be able to view a map of the entire environment before playing, getting a feel for shortcuts and possible delay areas.

Runabout 2 certainly looks the part, with varied cityscapes and great night-time neon effects (most of the five environments are urban based, taking inspiration from Las Vegas, Tokyo and European cities). Plus, the extra gameplay modes and features will add even more to an already amusing and playable premise.

Now that Reflections has demonstrated the potential of the urban driving game, *Runabout 2*, with its wealth of new gameplay possibilities, deserves to grab the attention of a larger audience that its precursor managed.

Format:	**PlayStation**
Publisher:	**Climax**
Developer:	**In-house**
Release:	**Winter (Japan)**
Origin:	**Japan**









There are five different maps to explore, and each presents the player with several different missions. At the end of each mission, you are awarded a new vehicle

SUPER RUNABOUT

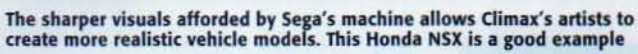
The PlayStation is not the only console that will be receiving a *Runabout* sequel: Climax is also sending its lunatics-on-wheels racer into the Dreamcast arena











The sharper visuals afforded by Sega's machine allows Climax's artists to create more realistic vehicle models. This Honda NSX is a good example





***Super Runabout*'s graphics may be more refined, but they're still there to be smashed into and generally made a mess of**

Format: **Dreamcast**

Publisher: **Sega/Climax**

Developer: **Climax**

Release: **Winter (Japan)**

Origin: **Japan**

Barely a year into its lifecycle and Dreamcast is already inundated with driving games. It has light-hearted romps (*Buggy Heat, Speed Devils*), urban 'thrills' (*Tokyo Highway Battle*), and exhilarating arcade jaunts (*Sega Rally 2*). What it doesn't have is something that attempts to bring together elements of all three. Enter *Super Runabout*.

Despite bearing a tweaked title, *Super Runabout* shares many similarities with *Runabout 2*, but it boasts much bigger maps and many more routes to explore. The structure is also more logically mission-based. Here, though, the game set-up is even more intricate, featuring sub-missions within the main objectives, and 'Emblems' which can be picked up at different points in each map. These emblems then provide special features, such as displaying hidden roads, erasing annoying obstacles or giving access to mini-games. It's a much more dense set-up, reflecting the multi-layered gameplay made popular by *Sonic Adventure* – something gamers can expect more of in future Dreamcast titles.

Perhaps most immediately impressive are those crystal-clear visuals. Much of the game is set in San Francisco (which the developer visited to get the feel just right), and the city's mix of architectural styles and ethnic cultures is beautifully captured. The vehicles are equally impressive. A Porsche 246GT and Vespa moped are among the starting line-up, but many other motors pop up, including an F1 racer and a bus – all modelled with a keen eye for detail.

To give the game an interesting topical twist, players do not pick up money as they go along. Instead, each time they damage either their own vehicle or someone else's property, the bill gets added to their line of credit. If the payments gets too high, the player is added to a credit black list – game over.

Those aware of the recent economic slump in Japan will know that many Japanese families have sunk into debt, unable to pay off loans they took out in more prosperous times. It's rare that a game tackles such sensitive social issues, and rarer still that it should be done in a comical driving game. If *Super Runabout* is as good as it promises, though, at least there shouldn't be too many staff at Climax's development HQ needing to remortgage their abodes to make ends meet.



The development team visited San Francisco for research purposes

FURBALLS

The world of videogaming is littered with cute, wide-eyed characters, so the prospect of another batch may not be appealing – until you see just how twisted this new breed can be...



With the trend of 3D platformers now passed, it will be interesting to see what impact Bizarre Creations achieves with this (all shots from Dreamcast version)



Despite the cute visuals, *Furballs'* world can be as violent and dangerous as anything in games boasting a more realistic-looking set of characters





In order to complete the game, switching between the six controllable characters is an essential activity

Format: **DC/PC/PS2**

Publisher: **Acclaim**

Developer: **Bizarre Creations**

Release: **April**

Origin: **UK**

That *Furballs* is being created by a developer usually associated with racing games will no doubt surprise many. The game's six cute, cuddly and likeable main characters, and the brightly coloured cartoon environments they inhabit, are worlds apart from the elements of *F1* and *Metropolis Street Racer*, Bizarre Creations' most significant productions to date.

Except *Furballs* is anything but cute and cuddly. One rather conspicuous clue to this fact can be found in the protagonists' close relationship with heavy-duty weaponry, which leads to the second indication that this game isn't targeting *Crash Bandicoot*-loving prepubescents: you can shoot your enemies' heads off. You don't have to – well-aimed body shots are equally effective – but doing so gives the game a decidedly non-fluffy spin.

In addition to neutralising the opposition as you navigate the levels, there are puzzles to negotiate, and dotted around the place are pods which allow you to change into one of the other five playable characters. Predictably, each of the creatures has its own unique abilities which are required in specific circumstances – the cat's wall-climbing ability, for example, allowing it to reach parts of the gaming environment that other animals can only gaze at.

At ECTS, **Edge** had the chance to sample the Dreamcast version of *Furballs* and Bizarre's progress appears to be moving along the right tracks. The character animation is without immediately apparent faults, the environments are convincingly solid-looking, and the adult nature of the humour makes a stimulating change from the usual safe, oversanitised approach taken by many developers.

Particularly memorable was the multiplayer deathmatch option, which **Edge** indulged in with complete disregard for the clock, resulting in a late arrival at its next ECTS appointment. Hopefully the finished version will prove as captivating.





As you'd expect from a Dreamcast title, the environments are refreshingly glitch-free

LEGEND OF DRAGOON

As the PlayStation approaches the end of its natural life, a group of Japanese creatives are busy creating what they hope will be the last word in 32bit visuals



Sony's eagerness to sell the graphical content of *Legend of Dragoon* is such that it has released a demo CD in Japan featuring only prerendered CG





It's absolutely no surprise to see characters granted a royal audience (left)





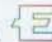
A total of 600 CG sequences are stored over four CDs. One of the most interesting elements is a creature with gruesome tentacles (above)

Whatever is said about graphics taking precedence over gameplay, great visuals remain fundamental draws. SCEI knows this, and with its latest RPG, originally unveiled at Siggraph on August 9, it is creating perhaps the most striking-looking title the PlayStation has ever seen.

The quality of *Legend of Dragoon*'s should be without question, though, considering more than 100 Japanese staff have been labouring over the title for the last three years. With around 600 prerendered sequences in the bag, the team has also striven to create realtime graphical content to die for. The results speak for themselves.

Sony has not yet made the game available for playtesting, but it has released scenario details: on a continent named Endless, a great tree called Shikiju once created 108 types of lifeform. In typical RPG backstory fashion, they fought until one type became dominant – humans. Now, 10,000 years later, the forgotten foe is fighting back.

Clichés aside, *Dragoon* may yet provide RPG heads with a thrilling alternative to *FFVIII*.









In visual terms, this is the most ambitious RPG to date. Though it does not innovate in the way *FFVIII* does, *Dragoon* is as glossy as it gets

Format: **PlayStation**

Publisher: **SCEI**

Developer: **In-house**

Release: **December (Japan)**

Origin: **Japan**

MDK2

An ultra-cool commercial flop, *MDK* remains a cult classic with hardcore gamers. Cue the return of antihero Kurt Hectic and friends. This time they want to make it big







Many of the original game's key features are retained, with Kurt's ribbonchute and zoomable sniper rifle crucial to his stealthy process through the first three levels





One of the new characters is Max the dog. An all-action hero, he brandishes four firearms



Offbeat humour was one of *MDK's* endearing features and Bioware is ensuring a similar atmosphere thanks to set pieces like this 300ft boss

It may have been one of the most stylish games of its time, but ultimately *MDK* failed to shift units. But innovative features such as a zoomable sniper's rifle and the offbeat humour of its developer Shiny ensured its enduring popularity with hardcore gamers, regardless. And, a year and a half ago, it was this cache that convinced Interplay to commission a sequel from Bioware.

"I was a really big fan of the original, so it's been a challenge to make sure *MDK2* lives up to the hype," explains **Greg Zeschuk**, president of developer Bioware, which was entrusted with the project following its success with RPG *Baldur's Gate*. "We didn't really want to change the game fundamentally," he recalls. "Kurt is a well-rounded character, so we decided to add two more." The scripts Shiny had written for a never-produced TV show aided the task of fleshing out these new characters – Dr Hawkins and Max.

Starting with Kurt, the game is spread over nine levels, which are highly reminiscent of the original. *MDK* was characterised by the way it invoked the vertical dimension using Kurt's ribbonchute, and Bioware has built on this. It has minimised changes to Kurt's gameplay, too, although he has become stealthier and can now strafe while in the sniper mode.

Sent in to rescue Kurt after he gets captured, Max is a genetically engineered dog with four arms. Each can carry a weapon, making him an all-action character. The doctor, on the other hand, is unarmed, so when his ship in invaded he has to defend himself by combining domestic objects to make armaments, A-Team style.

MDK2 is currently around 50 per cent complete, with Bioware experiencing few development problems on its first console project. In fact, the ease with which Dreamcast deals with transparency layers has only become apparent when implementing them in the PC version. But technical advice from Sega will be forthcoming to optimise the game's update, which wavers from 60 to 25fps.

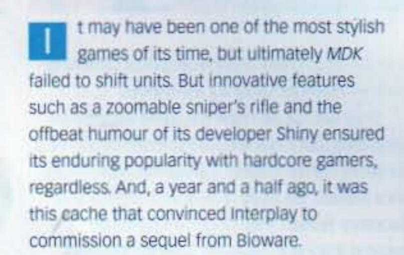
Format: **DC/PC**

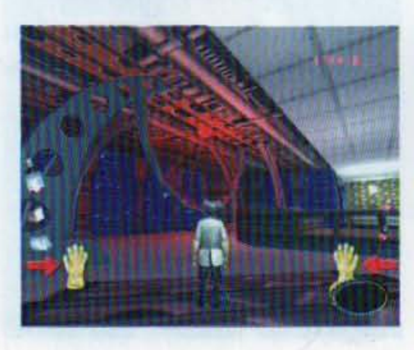
Publisher: **Interplay**

Developer: **Bioware**

Release: **February**

Origin: **Canada**







***MDK2* is a singleplayer-only game which will rely on its storyline and strong characters for success**

SpaceChannel5

Q: What could one of Sega's finest racing game producers bring to a Dreamcast rhythm-action game? **A:** A whole new slant on the genre. Oh, and see-through dresses...





Space Channel Five revels in retro sci-fi pop kitsch. The game had a special stand at the autumn Tokyo Game Show, where it commanded an insane amount of attention



At the outset, the game appears all too simplistic, and it's certainly not a mainstream title, but it's an appealing taste once acquired

Few **Edge** readers will need an introduction to **Tetsuya Mizuguchi**. He produced *Sega Rally*, one of the finest driving games ever created, plus the likes of *Manx TT* and *Sega Touring Car Championship*. But Mizuguchi-san recently abandoned the world of the coin-op to set up Software R&D#9 at Sega and take control of a rhythm-action game for Dreamcast.

Set in the 25th century, *Space Channel 5* follows a slinky reporter named Ulala whose goal in life is to dance – and get everyone else to dance with her. Players will be faced with two game modes. In the dance phase, you beat out the tempo of the music with one finger while executing different dance commands with the other hand – the closer you get to following the instructions in time, the more characters join in the dancing. In the shooting phase, you still have to keep the tempo, but now use your free hand to play a shoot-the-aliens-style game. It's a simple command interface and that's what the team wants. *Space Channel 5* is aimed at 'light users', not hardcore otaku. It's a lot easier than *Bust A Groove* and Mizuguchi-san describes it as "a totally different game to *PaRappa the Rappa*."

So what drew Mizuguchi-san to create a console title rather than an arcade game, and of creating a game for allcomers, not just coin-op obsessives? **Edge** took a trip to Shibuya to find out...

Edge: *Space Channel 5* looks unusual. How would you describe it?
Tetsuya Mizuguchi: It's difficult to explain. 'Dance, fight and drag' is perhaps the best way to describe the gameplay. The funniest thing is dragging people behind you. Ulala's power, passion and love draw other characters in and synchronise their movements with her. As more people join in, the atmosphere becomes more tense and the rhythm goes faster.
Edge: Is it strictly a oneplayer game?
TM: Yes, but I think it's much more fun to play it with a group of people around you. We still do not know if we will support the modem or VMS. We'll decide when the core of the game is finished. I don't know whether our target audience will be interested in these features. I need to do some more research.
Edge: What is your target audience?
TM: I want to target people who don't usually play games. Recent titles have featured quite tough gameplay, which puts a lot of newcomers off.

Ulala's power, passion and love draw other characters in and synchronise their movements with her. As more people join in, the atmosphere becomes more tense

Edge: What sort of difficulties have you encountered during production?
TM: To make it interesting. We changed the game system to improve the gameplay feel, because I did not want to make a game that only offered style and atmosphere. I think it is more complex than that – the game needs to be fun.
Edge: Did you have an international audience in mind when you were







The trippy backgrounds are reminiscent of sci-fi imagery from the '60s and '70s. 'Star Trek' meets *PaRappa the Rappa* – a distinctive combo



Ulala starts each dance alone (above) but as the game goes on, she drags bystanders into the proceedings (top right). Mizuguchi-san loves this element



Mizuguchi-san owns the last word in limited-edition Dreamcast hardware

developing *Space Channel 5*?

TM: Not particularly. For *Sega Rally* or *Manx TT* we were aware of the foreign market. This time I think we're concentrating on 'pure fun'. We aren't really thinking of a specific market. We simply follow our inspiration.

Edge: You've now worked on both coin-op and console games. How different are they to develop?

TM: There are different ways to explain it. I believe it's like the difference between movies and television. In a movie theatre the audience stays for about two hours in the same environment. Television's viewing sessions are shorter, and there are commercials, etc. It's similar with games. As for which is most fun to develop, I enjoy both. In arcade games, there is a physical feeling that players do not get with console games – like sitting on the bike in *Manx TT*. However, it's frustratingly difficult to transmit a message in arcade games – you only have three minutes.

> In arcade games, there's a physical feeling that players get – like sitting on the bike in *Manx TT*. But it's frustratingly difficult to transmit a message in only three minutes.

Edge: Where does your inspiration come from? Do you still go clubbing now that you live in Shibuya ?

TM: [Laughs] Now that I live in Shibuya, I don't go to clubbing any more. I walk in the park or sit on a café terrace. I also watch people. I go out of the office and sit in a café and speak with people. I've been doing that a lot recently.

Edge: Why did you decide to move to Shibuya rather than stay in Haneda?

TM: Inspiration. Things go smoothly here. It is a good place for people to gather. I think Shibuya is a good place for writing console games. Shibuya is maybe the only town in Japan which has a strong culture of its own.

Edge: There aren't many games like *Space Channel 5* in Sega's lineup. Do you think the Dreamcast needs new ideas like this?

TM: There haven't been many interesting games recently. I don't know why, exactly. Better graphics and music are not enough. If the gameplay does not really change from what is available already, the market may shrink.

Edge: Did you set out to create what some might term a sexy character on purpose?

TM: I think we thought about it. With Ulala, okay, you can see her panties under the skirt, but it is not aggressively sexy – the impression is very light. We did not set out to make a sexy game. The action takes place in the 25th century and we tried to imagine what clothes would be like in the 25th century. We felt that, in 500 years' time, it would not be such a big deal to have visible panties. Ulala looks very real and



Mizuguchi-san kicks back in the comfort of his Shibuya office

Format: **Dreamcast**
Publisher: **Sega**
Developer: **Software R&D#9**
Release: **Winter (Japan)**
Origin: **Japan**





The visuals are rather simple for a Dreamcast game, but the team is focusing on making an enjoyable and playable title rather than impressing graphical fetishists

sexy, she moves with passion in a very sexy way. We worked a lot on it. However, Ulala does not use 20,000 polygons – in fact she uses very few. I think the sexy aspect comes from the way the character moves.

Edge: What new possibilities does Dreamcast offer in gameplay terms?

TM: Well, I have another title in pre-production. I'm researching how far we can use the Dreamcast as an image and audio synthesiser. On this project, I'm taking into account the worldwide market and I think my experience of arcade games will be very profitable. I'm trying to incorporate the essence of an arcade game into a console game. It will be a kind of 'toy' using music and sound.

Edge: What do you think of Dreamcast's performance in Japan?

TM: I believe it's been doing well recently because of the *Seaman* influence. The number of people wanting to play *Seaman* is really important, and it's particularly popular among girls. Before the game was released, everywhere you went, everybody was talking about *Seaman*. People were saying, 'It sounds fun, I want to buy it'. Now, if you go to any game store in Shibuya, the game is sold out.

Edge: What do you think are the main advantages Dreamcast has over other forthcoming consoles?

TM: I think the Dreamcast is easy to handle. The libraries and tools are good. It is quite easy to get into developing for it. Of course, other hardware specifications will be higher, but Dreamcast can do things that other platforms can't do. But I don't think in terms of hardware at all. I think in terms of content.

Edge: Under what sort of conditions are you developing *Space Channel 5*? Were you asked to create a more massmarket title?

TM: Sega did not order anything in terms of creativity. In fact, Irimajiri-san just told me to gather a team of 50 in Shibuya. He was impatient and excited to see the results.

Edge: Do you think your move from Sega HQ to Shibuya was some kind of test for you?

TM: I think it is in part a test. Some time ago, another development team moved out of Sega but it was a failure. It's a big gamble for the company. But Sega executives have been positive about the project. Regarding creativity, I think they are quite open-minded. Irimajiri-san or Hisashi Suzuki sometimes come here, we have a chat and a laugh.

Edge: And what did Irijimari-san think about the game?

TM: He played it and laughed. He had a lot of fun.



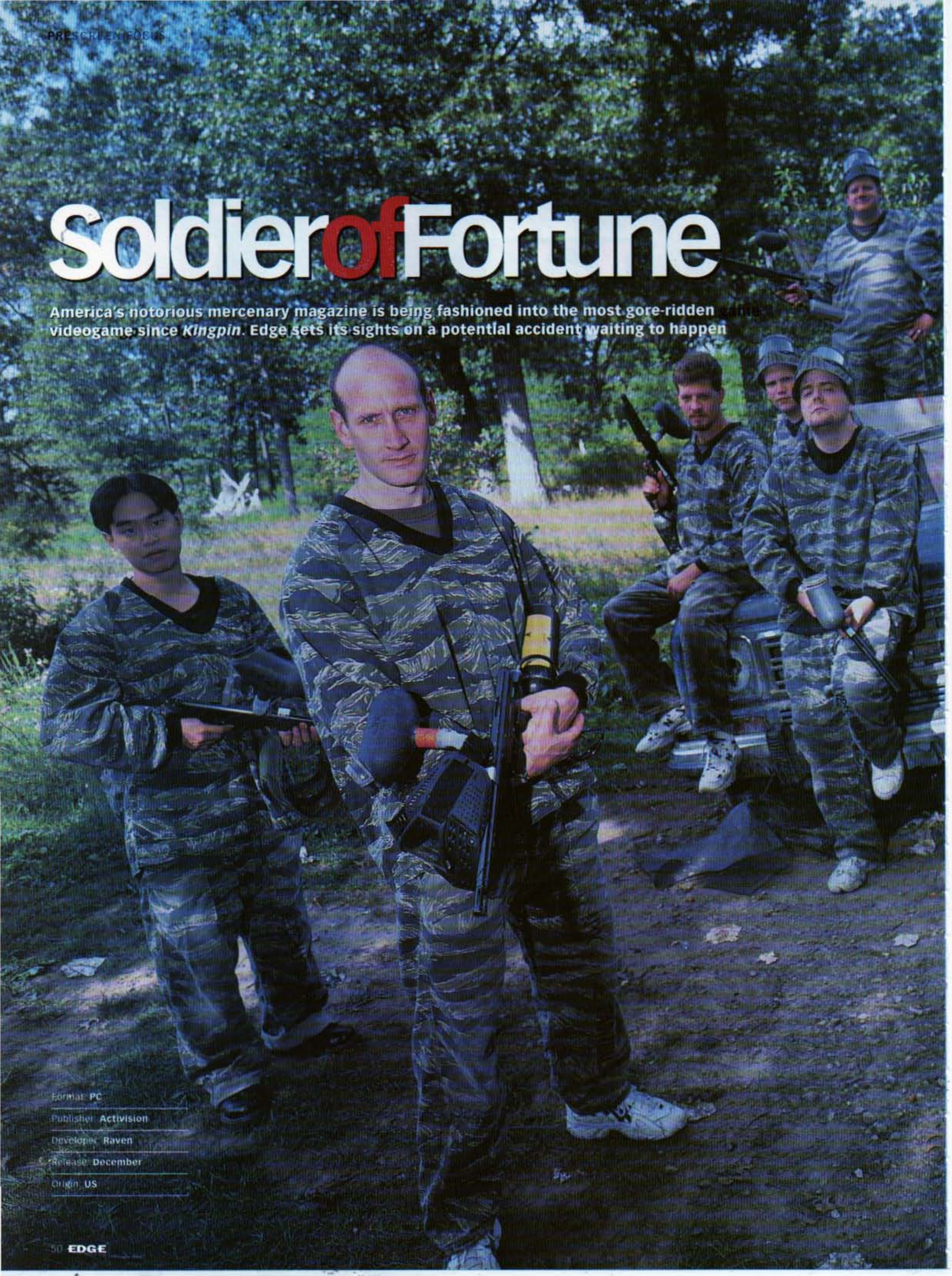


Along with the dancing mode, there is a shooting phase where the player has to blast incoming aliens using rhythmic key presses

Photography: Hiroki Izumi



Having created *Sega Rally*, it's not difficult to see why Mizuguchi-san was given the freedom to leave Sega HQ and set up a new facility in the heart of Shibuya



Soldier of Fortune

America's notorious mercenary magazine is being fashioned into the most gore-ridden videogame since *Kingpin*. Edge sets its sights on a potential accident waiting to happen

Format: PC
Publisher: Activision
Developer: Raven
Release: December
Origin: US



Edge carefully pokes its head from around a log. Someone makes a they're-in-front-of-you motion, but it's already too late. *Phutt, phutt*. The sting of a paint pellet breaking confirms that this encounter is over. Brushing orange goo from a headshot that in a real combat situation would have entered just above the right eye and exited taking most of the scalp with it, **Edge** leaves the skirmish, reputation in tatters.

"We wiped you guys out," beams a happy **Brian Raffel**. The vice president of Raven Software's dashing attitude is reinforced by his appearance, a pair of wraparound shades and a rakishly angled red beret completing the image. Despite complaining about a bad back, Raffel's the biggest, most competitive badass on the paintballing field. He's someone who has to win.

Formed in 1988, Raven made its name with the fantasy series *Hexen* and *Heretic*, before being bought by Activision two years ago. Its latest game marks a change of direction, however. Gone are the ghouls, goblins and dungeons, and in their place strides gun-toting firstperson shooter *Soldier of Fortune*. It makes Raffel's Rambo-esque appearance strikingly appropriate, a scarlet beret being the signature headwear of mercenaries, or 'consultants' as they generally prefer to be known.

"We were really shooting for a *Doom*-type atmosphere, where it's a constant adrenaline rush," explains jovial project co-ordinator **Eric Biessman**, revealing the inspiration behind the game, his heart still pumping hard following some valiant last-ditch paintball defence. With the likes of *Quake III* and *Team Fortress 2* redefining the realm of multiplayer in the FPS genre, and *Half-Life* relying on tension for its kicks, Raven's criteria for *Soldier of Fortune* are



Raven's head honcho Brian Raffel (above) and his crack squad prepare for training

full-on action, as realistic locations as possible, and as realistic weapons as possible.

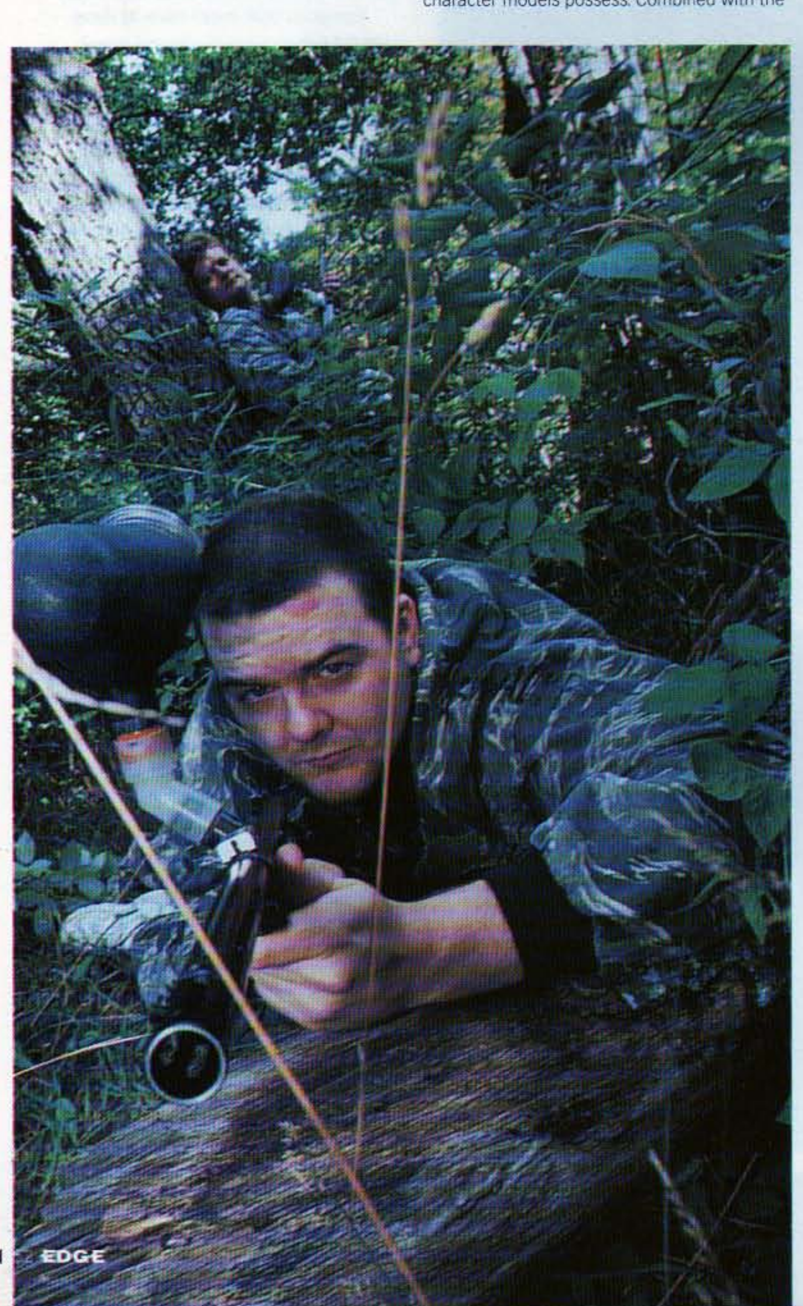
"The whole premise is that four nukes have been stolen from an unprotected stockpile in Russia," says Biessman. As an ex-special forces soldier called John Mullins, now hired by the US government, it's your job to find the bombs before they fall into the wrong hands. As well as Mullins, the plot is reliant on his partner, Hawk. Although non-playable, he is key to most missions, thanks to the judicial use of ingame cut sequences. Raven has designed *Soldier of Fortune* with a strong cinematic feel. "Hawk's a cool character, but he's only there for the story," explains Biessman.

One gameplay feature that has already become infamous is the total of 26 locational damage areas – or 'gore zones' – that all the character models possess. Combined with the true-to-life tolerance for bullet damage, a high proportion of kills in the game will probably be of the single-shot variety. But if players can take out enemies with a well-aimed burst, the reverse is also true. At least it was in the pre-alpha version **Edge** played, where a couple of shots were needed to end the game in favour of the AI.

Combined with the fact that Activision acquired the game's title from the magazine of the same name, *Soldier of Fortune* is already becoming something of a *cause celebre* in certain circles. Its level of violence is graphic even by firstperson shooter standards, and *Soldier of Fortune* seems likely to be the first game to out-gore current badboy of the genre, *Kingpin*. Comparisons between the two are easy to make. Both use modified versions of the *Quake II* engine, and both allow players to shoot limbs off their enemies, potentially reducing bodies to legless, armless and headless lumps of meat.

The German question

During a recent showing, project administrator **Kenn Hoekstra** was asked by a German journalist what the difference was between the violence of *Kingpin* and *Soldier of Fortune*. "I told him that in *Soldier of Fortune* you're saving the world from a terrorist group with stolen nukes," Hoekstra recalls, shaking his head at the thought that *Soldier of Fortune's* moral plot could be compared to Xatrix's urban motherfucking gangbang. Yet the situation is a confused one. During one Website interview, Raven team members derided *Kingpin* for being unrealistic because it doesn't match the number of shots fired to bullets holes in a body, as *Soldier of Fortune* does.





(Left) Lead designer Jim Hughes lays in wait while lead artist Joe Koberstein (above) checks out the opposition

"We'll obviously need a whole new version for Germany," sighs Biessman, safely back in the dark confines of Raven's anonymous single-storey office block. It's a problem suffered by almost every developer trying to break the German market. Even the likes of *Command & Conquer* and *Dungeon Keeper* get heavily reworked in an attempt to comply with its stringent censorship laws. "We have to cut out all the gore, all the death animations, remove references to real locations, and change the characters to make them robots," he explains. "That's a little odd for us, but we will do it."

Of course, this says more about specific national laws than different cultural views on game violence *per se*. Not only is *Quake* illegal in Germany, but attempts have been made to ban paintballing, too. There's something paradoxical about the restrictions imposed on what is the biggest PC market in Europe, but ignoring it is not an option many publishers would consider. The flipside of this localisation issue was revealed, however, when Raven invited some diehard US *Quake* fans to try out *Soldier of Fortune* – they loved it. "They were laughing because it was so over the top,"

says Biessman. "They actually found it funny." The first thing they did was pull out the sniper rifle and zoom in on characters' groins and shoot them, just to check out the death animations. It's worth nothing that, of the 467 character animations, Raven has undertaken for the game, the majority involve wounding and death sequences.

Riding the backlash

Things came to a head during the E3 trade show in May. With the mass media looking for scapegoats in the aftermath of the school shootings in Littleton, Colorado, *Soldier of Fortune* had a rough time. Not only was the game's .avi watered down and then removed from public display, but Activision decided to pull it from the show floor, relegating it to a press-only suite. It wasn't the only game to suffer. Nintendo also removed footage of *Perfect Dark* from its press conference and Sega's *House of the Dead 2* was not equipped with lightguns, a restriction that still remains in force despite Dreamcast's successful launch. But with a lawsuit from a previous school shooting hanging over 18 games companies, including Activision, it's clear that sensitivities about game violence remain high in the US.





(Above left) Lead animator Eric Turman prepares to drop his facemask and make his move. In another part of the forest, project co-ordinator Eric Biessman (above right) practices his Arnie-in-'Predator' impression

"I don't think *Soldier of Fortune* is really more violent than other games, but it is more graphic," argues Biessman. Since E3, it has been demoed at a few games conferences without any problems. "I hate to say it," he continues, "but that's what a lot of people in the firstperson shooter market look for. Even *Half-Life* was pretty gruesome when you shot a marine." Yet he does agree that public anxiety did, initially at least, prompt the team to take some time to consider the whole 'violence' issue.

"It was weird because we found ourselves questioning what we were doing," he recalls. "Then we said, 'Wait a minute, it's just a game. Kids shouldn't be playing it and we shouldn't be parenting for people'." Raven is developing a comprehensive parental lock system, which allows the complete scaleability of violence and gore, from the usual green blood options through to non-detachable limbs and the removal of death and wounding animations.

"From the beginning we knew we were making an 18+ game," justifies Raffel. "Our job is to be upfront, giving our content clear labelling, as well as allowing parents to ensure their wishes are carried out with a password-protected parental lock."

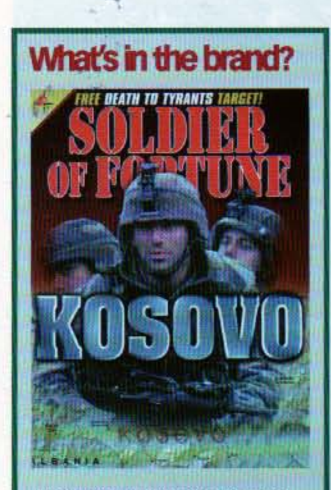
A magazine for shooters

Another issue has been game's licence. *Soldier of Fortune* magazine is a strange mixture of reminiscing service veterans, right-wing arguments about US foreign policy, and real-life 'gun for hire' nutters. In contrast to the small ads that fill the back pages of other magazines, *Soldier of Fortune's* are packed with mysterious offers of jobs in dangerous African and Balkan hotspots. It's the only place to go if you want to hire a private army.

"A lot of people have different views about the magazine," Biessman reveals, himself not a gun owner. "I think we were a bit hesitant at first." It's a view echoed by Raffel. "At first, it kind of shocked us," he recalls. "Then we realised it was perfect. It was a name that captured the essence and the feel of the game we were trying to

Comparisons between *Kingpin* and *Soldier of Fortune* are easy to make. Both use Quake II engines and both potentially allow players to reduce bodies to legless, armless and headless lumps of meat

What's in the brand?



'We strongly support the right of the individual to keep and bear arms,' states *Soldier of Fortune*'s editorial policy. 'By opposing tyranny of all kinds, we support the basic freedom of mankind.' It also comments, 'Our policy is pro-military, pro-strong US defence, pro-police and pro-veteran'.

A strange mixture of hawkish, right-wing politics mixed with a *T3*-style keenness for product testing, *Soldier of Fortune* at least makes interesting if stark reading. In its view, the battlelines are clear. Bill Clinton, the Bureau of Alcohol, Tobacco and Firearms and any laws about guns are bad, whereas Smith & Wesson and the National Rifle Association are heavenly. Its hero is president of the NRA, Charlton Heston – an individual who is the closest any American will ever come to being Jesus.



The heavy machinegun takes off limbs with ease, although a sniper rifle will be the preferred option for stealthy gamers



create." If nothing else, it gives the game a dangerous, subversive aura.

Still, Raven has been cautious about which aspects of the mercenary experience it has implemented. At present, it's not even certain whether it will provide an economic system – surely the *raison d'etre* of all 'consultancy' work. Most notably, there are none of *Kingpin's* moral ambiguities either. You play a good guy, out to save the world from bad guys. There may be plenty of blood and gibs flying around, but it all belongs to the bad guys.

All of the 32 missions take place in realistic situations, with the first two teaser levels involving rescuing hostages from a neo-Nazi gang on the New York subway, and capturing a speeding train in Uganda. Other locations include a Siberian chemical warfare factory, a Sudanese slaughterhouse, and a Tokyo high-rise block. All of the missions have been heavily scripted, with Raven giving the game a strong cinematic presence. One of the highlights seems sure to be the Iraqi mission, which opens with a cut sequence involving America's public enemy number one, Saddam Hussein.

"We're not going out to offend anyone; we are using realistic locations and realistic situations," Biessman says, before confusingly adding, "even though you go to Baghdad, you aren't fighting Iraqis." Instead, behind the nukes is a sinister controlling force known as The Order – a presumably nationality-free supergroup that is trying to infiltrate itself around the world and using the nukes as bait.

One of the neatest realistic elements of this hyper-realistic game is that when you stab someone with the Bowie knife, the blood will remain until the blade is wiped clean



Lead programmer Rick Johnson isn't known as 'mad-eyed Dick' for nothing, as his high-scoring paintball performance made patently clear. Edge still has the bruises to prove it

Straight shooting

As well as proper settings, Raven was obviously keen to model firearms as realistically as possible. Originally, it wanted to license individual guns, but manufacturers proved less than enthusiastic. Instead, ten of the 12 weapons are generic items, such as the combat shotgun, a 9mm automatic, silenced machine pistol and .50-calibre heavy machinegun. And although they haven't been modelled to the level of detail of tactical games such as *Rogue Spear*, approximations of rates of fire and cones of accuracy have been made. The final two weapons, a radiopulse and a micropulse gun, are the result of imaginative research, both having been uncovered in a 'future of weaponry' reference book. Biessman says that they only feature at the end of the game, though, and as such are designed to be bonus items.

Another matter for debate is actually how realistic *Soldier of Fortune* is. Despite the ease with which you can blow off limbs in the game, it's obviously not something that occurs frequently on the battlefield, especially when using a mere .357 handgun. "Some people won't like the fact that you can shoot a limb off, and probably in reality it's not going to detach," Biessman concedes. "I think it's like a Paul Verhoeven film. It would never happen in real life but it's just a visual effect and it is something that helps you to know that it's still a fantasy."

In many ways *Soldier of Fortune* faces that old gaming chestnut: a truly realistic computer game would either be so boring or so hard

that no one would want to play it. *Soldier of Fortune* is better viewed as a hyper-realistic game with realistic elements. Depending on your point of view, one of its neatest tricks is that when you stab someone with the Bowie knife, blood will remain on the blade until it's wiped clean. Less trivially, no health power-ups are available, but you can pick up armoured vests to maintain health levels.

Audio also plays a vital role, at least for triggering the enemy. To maintain frenetic action levels, Raven has chosen to spawn enemies throughout a level once a mission starts. However, the numbers spawned and their alertness will depend not only on the noise you create, but the response of the enemy. You might be using a silenced gun, but if someone is shooting at you with a rocket launcher, the numbers spawned will be the same as if you were using a rocket launcher yourself.

The id connection

Soldier of Fortune is one of the last big titles to use the *Quake II* engine, although Raven has completely overhauled id's ageing masterpiece of code. The key change is GHOUL, a proprietary renderer which generates the 26 gore zones, as well as providing per-pixel collision detection, bolt-on points for accessories, and allowing the artists to create highly detailed character models. Id's AI and lighting elements have also been upgraded.

Raven's good relationship with id stems from the brief period Carmack and Romero spent in Madison, the state capital of Wisconsin. A hundred miles or so west of Chicago, it's blessed with the characteristic weather of the mid-west – hot summers and freezing winters. Despite being twice voted the best place to live in America, it wasn't too long into the winter months that the id boys upped and left, deciding the all-year heat of Texas was more their scene. Still, id left its mark. One of the key research bases for the Internet, the University of Wisconsin was the first source for the original shareware version of *Doom*. Demand for the software was so high it crashed the server.

One of its other legacies was Raven Software. "Many developers owe their existence to id," says Raffel. "John Carmack was one of the luckiest things to happen to us."

When they first met, Raven's first game, *Black Crypt*, had just been released for the Amiga. Carmack was so impressed by the game's visuals he asked if there was any spare artwork he could use. Equally, Raven was amazed by the power of the 3D technology id was developing. Id's first licensing deal for a 3D engine was cemented and what became known as the *ShadowCaster* engine was the result. A hybrid of the *Wolfenstein 3D* engine and the then-incomplete *Doom* engine, it was used in Raven's second game, *ShadowCaster*. It was also the first technology to allow firstperson gamers to jump and swim. And Raven hasn't looked back since, licensing id engines for *Hexen* and *Heretic*. Unsurprisingly, its *Star Trek: Elite Forces* game is one of only three titles to license the *Quake III* engine to date.



Assistant lead programmer Dan Kramer over-enthusiastically leads the charge into the valley of death with lead programmer Rick Johnson more sensibly bringing up the rear

Pushing the envelope

With all the enhancements it has added, Raven has taken the *Quake II* engine to its limits. One of the features it is most proud of is the per-poly collision modelling, which allows players to shoot with extreme accuracy. "You can even shoot the antenna off a character's radio," Biessman demonstrates after several attempts, before going on to shoot the sunglasses off a beefy dictator.

Another neat technical flourish is that when leaning around corners using the 9mm pistol, you can even switch the gun between hands depending on whether you're dealing with a right or left corner. There's also the option to hold the pistol in a classic double-handed grip for extra accuracy. However, one of the nastiest

How many gore zones was that?



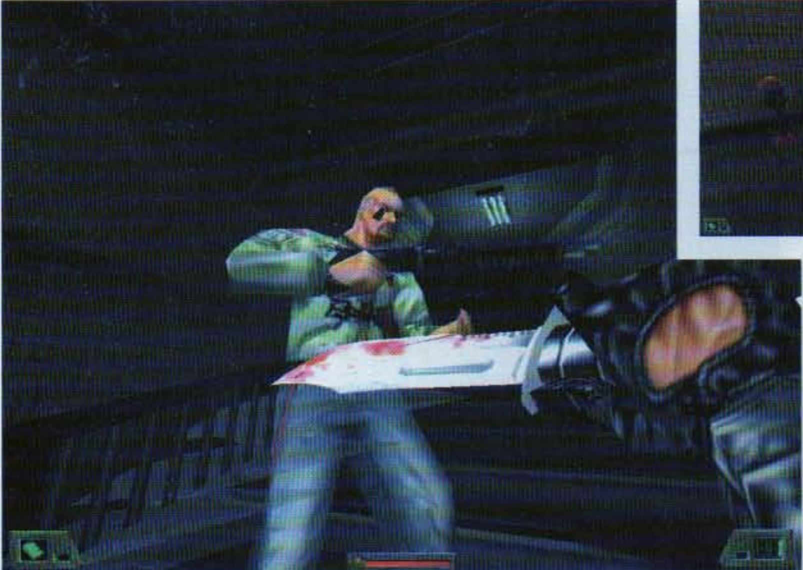
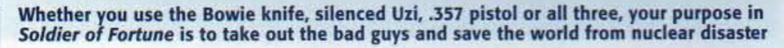
One of the key features of Raven's GHOUL renderer is the number of locational damage areas applied to each character model. Each of the 26 'gore zones' has a different hit value associated with it, with shots to the head and chest resulting in instant death. But two or three shots will be needed at the extremities. Depending on the calibre of the weapon used, you can also shoot off limbs, and the outcome of an abdomen hit pretty nasty – a realistic intestinal texture.

Most of the areas that can't be detached from the body also have exit-wound points associated with them, so players can shoot an enemy in the chest, see the hole where the bullet 'entered', and providing the victim falls on their front, also check out the corresponding exit wound.





Vehicles such as helicopter gunships, trucks and tanks will feature as bosses throughout the game's 32 missions




Whether you use the Bowie knife, silenced Uzi, .357 pistol or all three, your purpose in *Soldier of Fortune* is to take out the bad guys and save the world from nuclear disaster

The real John Mullins



As part of the licensing deal with *Soldier of Fortune* magazine, Raven received specialist advice from an ex-'consultant' named John Mullins. Although initially concerned as to exactly what he would be like, Raven was impressed both by his experience and his attention to detail. Just for the record, Mullins trained as a Green Beret, completing three tours of duty in Vietnam. He then worked as a Special Operations officer. And, yes, he did actually kill people. After leaving the military he performed various tasks for individuals and governments in locations ranging from Central America to Afghanistan and the Far East. These involved VIP protection, dealing with hostage situations, and leading police and military units in high-risk missions. His combat awards include the Silver Star, the Bronze Star with three Oak Leaf Clusters and several Purple Hearts.

Now retired from active service, he runs an advanced tactical training centre and a company that makes non-toxic frangible ammunition for law enforcement and military customers. He has also written three novels as well as episodes for the 'Soldier of Fortune' TV series.

modes of attack, pistol-whipping with the .357 handgun, has been removed, although not for sentimental reasons. "All the early weapons used to have a secondary fire mode," Biessman explains, "With the 9mm pistol its secondary fire mode was that it was fully automatic, and the .357 pistol had 'coldcock', but in the end we decided that it detracted from the basic weapons."

This demonstrates the contradictory pressures facing games such as *Soldier of Fortune*. Designed for the most extreme and demanding entertainment market in the world, the US PC gaming market, they also fall under the scrutiny of mass media which, with a totally different agenda, is all too ready to be shocked.

"I doubt very much that *Soldier of Fortune* will become the poster child for someone looking to make a name for themselves," cautions Raffel when asked about the likelihood of the game gaining massmedia notoriety. "It's always down to parents to guide and watch over the activities of their children."

This may be one of the stock answers of the computer game industry when asked about violence in games (the other being 'games don't kill people, guns do'), but it's no less effective for it.

Designed for the most extreme and demanding entertainment market in the world, the US PC gaming market, *Soldier of Fortune* will also be scrutinised by a mass media all too ready to be shocked

Of course, for many people these are merely ways to dodge the issues. Developers need to be responsible for the effects of their games. And this dichotomy cuts to the heart of computer games.

The developers at Raven are the most mild-mannered guys you're ever likely to meet. In fact it becomes almost farcical when attempting to chose paintballing teams. They try to split the group between those who are married and those who are single. Big philosophical arguments result over the status of those who are engaged. Anyway, the teams are hopelessly lopsided, always to the advantage of the 'marrieds' no matter which side the 'engageds' fall. They also admit to drinking too much soda and not getting enough exercise. The most exciting thing that occurred during **Edge**'s visit was the release of the new Megadeth album. You couldn't find more regular guys in the Regular bar at Regularville, RE, but as they sit in their darkened office cubicles, they show their other side. They are hardcore gamers to a man, working on one of the bloodiest games ever. This is the paradox experienced by everyone who takes games seriously. Gaming spans both the juvenile and the mature, usually in equal measure. *Soldier of Fortune* will be played by grown men, telling themselves they are out to save the world. They will load up a level, select the realistic sniper rifle, and blow the balls off international terrorists in realistic locations from around the world. And they will be sniggering like small boys.



The Baghdad-based mission includes a cut scene involving Saddam Hussein

nintendo spaceworld '99

> Edge wades through tides of children to report from Japan's most colourful game showcase...

way in >



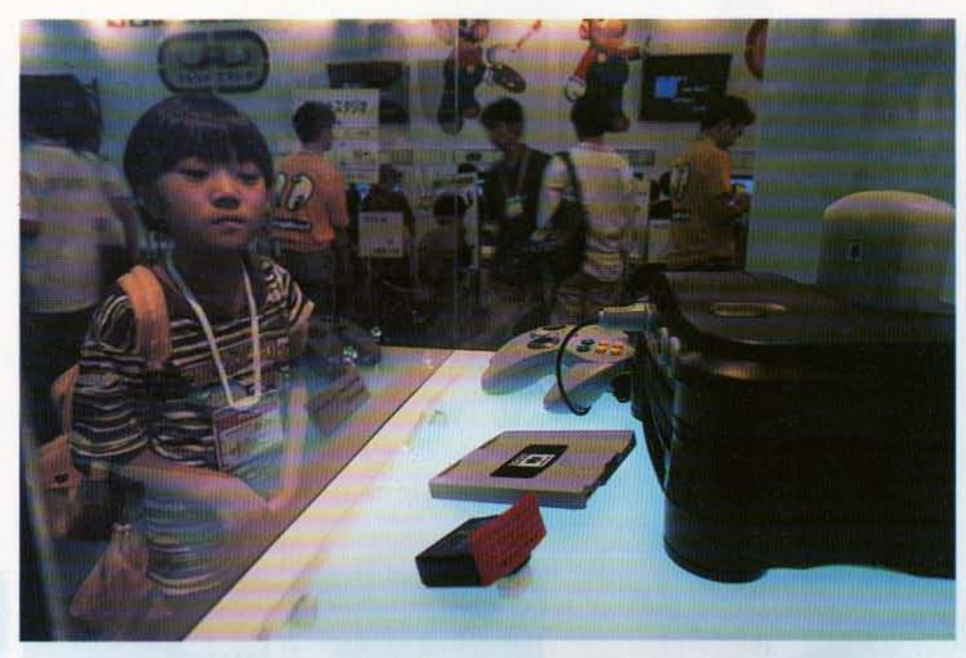
Photography: Hiroki Izumi

There were no next-generation console announcements and certainly not the merest whisper of Game Boy Advance, but judging by the attention afforded to Spaceworld '99, Nintendo's ability to draw a crowd in its home territory is as mighty as ever.

It's estimated that over 100,000 people, many as part of family units on a day out, made their way through the sweltering summer heat and into the air-conditioned relief of Tokyo's Makuhari Messe convention centre over August Bank Holiday weekend. Spaceworld was most definitely a family affair, affirming Nintendo's market placement as toy manufacturer rather than pioneer of hi-tech gaming experiences aimed at a hardcore audience.

Any bewildered western journalists who had trouble coming to terms with that fact soon got the message as they struggled to avoid being trampled underfoot by the three-foot-high crowds converging on giant fluffy hamsters, various Pokémon, or Diddy and Donkey Kong. And any still left doubting simply needed to glance around the edges of the giant hall where stages hosted such diverse events as Japanese DJs performing a live *Donkey Kong* rap, the latest pop starlet playing rock-paper-scissors-stone with the audience, or a live Pocket Monsters revue. In fact the only thing that remotely resembled a hardcore gaming event was the final of the show's *Smash Bros* tournament (still surprisingly popular nearly nine months after its release).

Split into roughly three sections – Game Boy, N64 and 64DD – the main draw of the show was, of course, the ubiquitous *Pokémon*. After considerable delay, *Pocket Monsters Gold* and *Silver* (essentially *Pocket Monsters 2*) were finally presented in a playable form, with a release date set for November. Over a quarter of the show's floorspace was given over to 288 monitors running the new game, which, to the untrained eye, seemed to look absolutely the same as the original (which is only now hitting the UK, nearly four years after its original Japanese release). For the hordes of Monster-obsessed children desperate for more of the same, that didn't seem to matter. And you had to be prepared to experience the new batch of 250 Monsters, Poké gear and the trading and rearing possibilities that the new game opens up. Despite fierce competition from every other thirdparty Game





(Left) "Wossat, then? An N64 add-on? Nah, that'll never catch on." (Right) Nintendo could supply no official figures, but tens of thousands attended Spaceworld



Nintendo held its end up with a follow-up to *Zelda*, *Mother 3* and *Mario RPG 2*, plus one real surprise



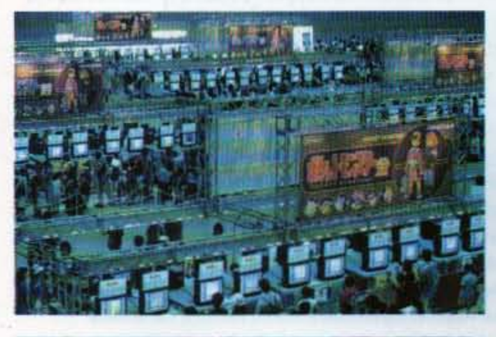
Boy release on show, it seems that the original is still the biggest and best – a fact borne out by the sight of hundreds of *Pokémon* addicts queuing patiently for the famed 151st monster – Mew – to be downloaded to their carts.

There may have been a general lack of variety in the Game Boy titles on display – puzzle games and *Pocket Monsters* clones still reign supreme – but there were still a few surprises.

A team up with Capcom revealed not one, but three new *Zelda* offerings, although only the first was actually available to play. Looking surprisingly similar to the six-year-old *Link's Awakening*, each adventure is completely new and will link up with the others to create one huge quest. Players can begin with any of the carts, but the order they choose will affect the shape of their quest as a whole. Gameplay-wise it seems that little has changed. There are only one or two additions: Link can now switch between the seasons with the not-so-cunningly named 'Rod Of Seasons', and even travel around in the pouch of a *Bomberman 3*-style kangaroo. Alas, the new *Zelda* series doesn't use the new GB Link cable (also on display) that allows the handheld to interact directly with an N64. That dubious delight was left to a rather impenetrable Japanese adventure title.

Elsewhere it was largely business as usual for the N64. Nintendo admirably held its end up with a follow-up to last year's *Legend Of Zelda*, the latest versions of the long-awaited *Mother 3* and *Super Mario RPG*, plus one real surprise. While it was true that nobody was really caught out by the appearance of Game Boy favourite Kirby in a *Klonoa*-style forced-3D platformer, or the updated NES racer *Excitebike*, the *Virtual-On*-esque *Custom Robo* seemed to spring from nowhere ready for a November release. Programmed by Marigul for Nintendo, *CR* has the player roam the land in true Japanese RPG fashion earning money and winning robot battle tournaments so you can upgrade and improve your existing mecha. The fusion of *Pokémon*-style collecting and trading with fast-paced arcade battles seems to work well, with a raft of new weapons and add-ons. Moreover, the absence of random turn-based combat is sure to win many fans overseas.

UK powerhouse Rare seems to have finally hit the Japanese market head on with *Donkey Kong 64*, although most showgoers probably didn't even realise that the Expansion Pak-enhanced 3D adventure wasn't

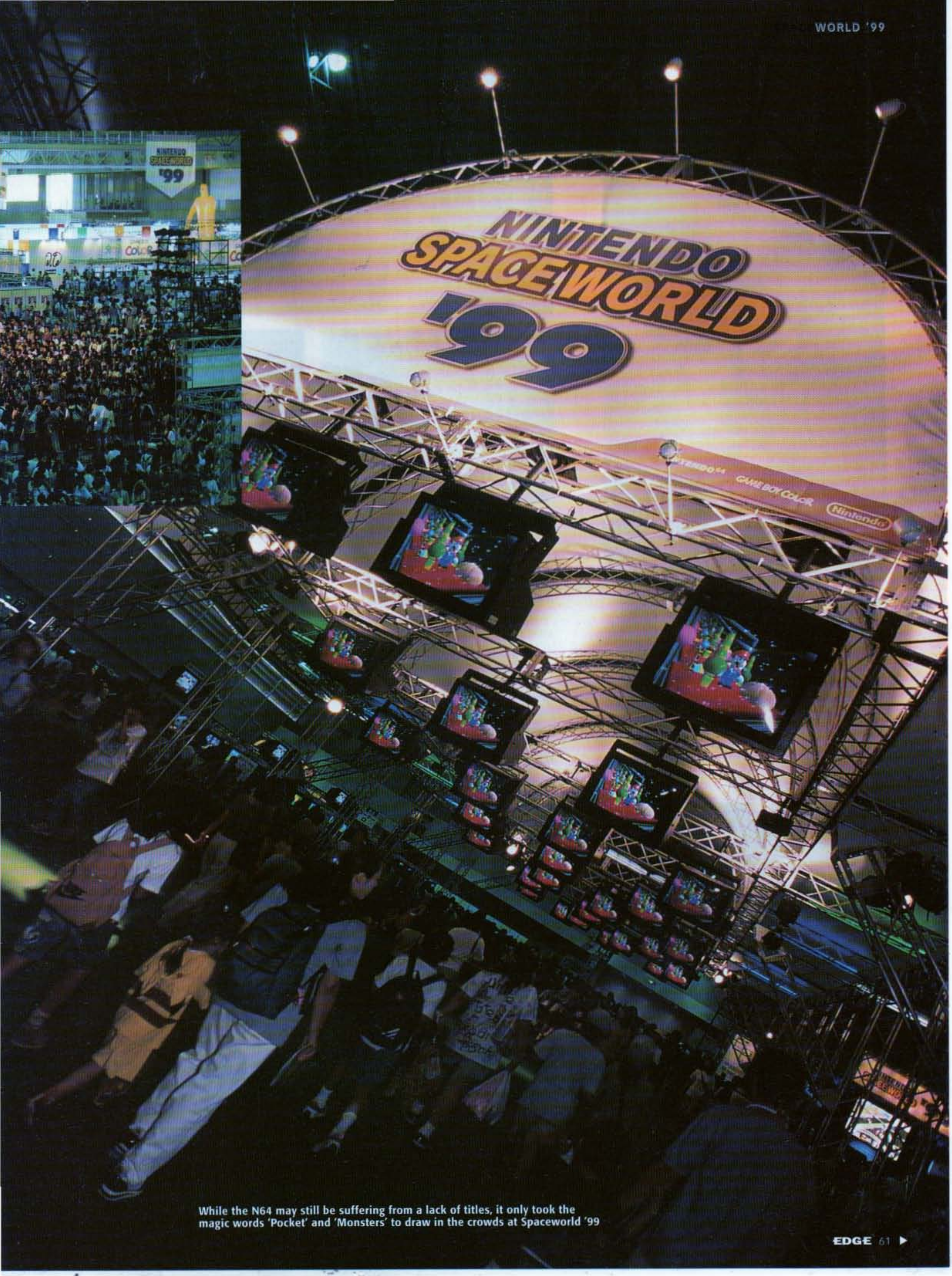




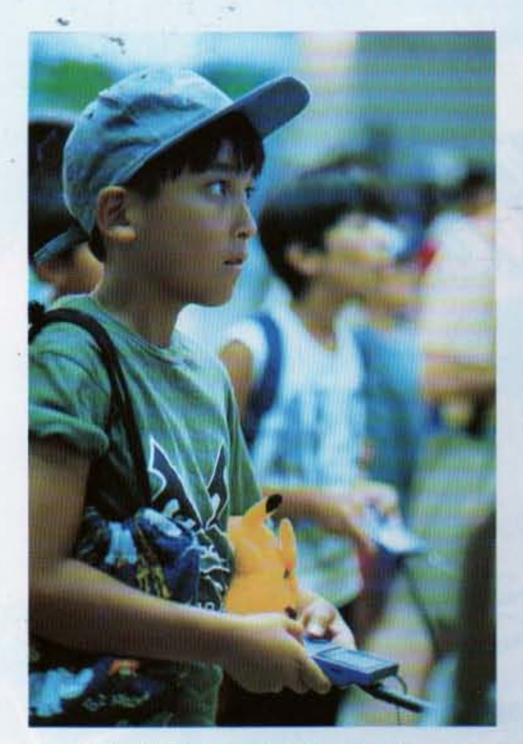
A total of 288 demo units were dedicated to *Pokémon* (top). Young fans attended by the truckload (above)



Blink and you might have missed it, but the GB Link cable was on show at Spaceworld



While the N64 may still be suffering from a lack of titles, it only took the magic words 'Pocket' and 'Monsters' to draw in the crowds at Spaceworld '99



Every single child in Japan, including this chap, owns at least five pieces of *Pocket Monsters* mechandise







Although the queues for *Zelda Gaiden* were long and tiring affairs, most showgoers seemed more than happy to wait for up to an hour for a brief five minutes with the new adventure

produced by Nintendo in Japan. With a new all-CGI animation show about to air on Japanese TV, *DK64* was given just as much attention as *Zelda Gaiden*, forcing attendees to wait for one-and-a-half hours just to have a stab at it.

Alas the same couldn't be said of other western titles. It was disappointing to western eyes to see Rare's *Jet Force Gemini* and the highly anticipated *Perfect Dark* somewhat shuffled off to the sidelines, and there was never any problem avoiding the Japanese national pastime – queuing – if you wanted a quick five minutes or more with *Tonic Trouble*, *Gauntlet Legends* or *Rat Attack*. Even a high-profile title such as Acclaim's *Shadowman* only warranted a single demonstration unit in the opinion of NCL's show organisation staff.

But Japanese thirdparty games fared better, with the N64 version of *Resident Evil 2* drawing in the crowds with its slick, if familiar, looks and gameplay, and Treasure's retro-styled blaster *The Explosive, Invincible Bangaio* appealing to the slightly older gamer.

If the rest of the world had already written off Nintendo's oft-maligned disc-drive add-on, the 64DD, no one seemed to have told Nintendo itself. With a release date of December 1, and a clutch of new titles lead by God-sim-with-character *Doshin The Giant*, a fair proportion of the show was given over to promoting the system. And with the console world currently in love with the prospect of online gaming, Nintendo also sprang a modem cart on to unsuspecting showgoers.

While not exactly a new idea (Seta released a special modem-cartridge edition of their Japanese chess title last year), the intriguingly named Randnet (or should that have been 'Landnet', as in the show brochure?) was everywhere in the 64DD enclosure. Through the 64DD it sets out to offer multiplayer networking and the equivalent of the SNES's Satellaview system, which allowed Super Famicom users to download demos and special versions of Nintendo games. The most intriguing title to take advantage of Randnet's online gaming was Seta's *Ultimate War*, a strategy war sim with impressive 3D battles showing the outcome of your decisions. Perhaps also due to the presence of a new golf title and the obligatory Mah Jong game, the DD area rapidly turned into the place to find all the fathers at the show while their *Pokémon*-laden offspring pasted their digitised faces onto bizarre virtual puppets in *Paint* and *Talent Studio*.

Also on show and playable for the first time was the excellent *F-Zero Expansion Kit*, which opens up track and car creation options on the original cart, and Nintendo's own DD version of *Sim City*. A wealth of Japanese labels and icons made it all but indecipherable for anyone not fluent in the language but it was hard not to be impressed with the ability to zoom in from a high plan view to street level in realtime 3D.

Leaving the DD area and taking a step back to appraise Nintendo's Spaceworld event as a whole, it was hard not to see it as one very big mixed bag. But the kids, at least, went home happy.





On December 1, Japanese N64 fans will finally be able to get their hands on the mystique-enshrouded 64DD





Stage shows kept the kids happy while older gamers gravitated towards to 64DD

Zelda Gaiden











There was no doubt that this pseudo-follow-up to last year's smash hit was the most popular N64 draw at Spaceworld: showgoers were more than happy to queue for nearly an hour for a frugal five minutes with Link and co. Although mentioned by Miyamoto-san in recent interviews, there was no sign of the proposed 64DD version of *Zelda*, dubbed '*Ura* [another] *Zelda*', leaving only the cartridge-based sequel, and the first in a new trio of Game Boy titles, to appease the fans, and show western journalists the only real NCL game that would undoubtedly be as popular outside of Japan as it will be to natives.

Zelda Gaiden ('gaiden' roughly translating to 'side story') uses an Expansion Pak-enhanced version of the N64 *Zelda* engine to improve frame rates and onscreen detail rather than increase resolution. Instead of creating a whole new game from scratch, however, the new adventure places the younger version of Link in an parallel dimension and cleverly reuses textures and characters from *Ocarina Of Time*. Thankfully, though, from the levels **Edge** played, this 'alternate' Hyrule map does seem sufficiently different from its predecessor – the actual map graphic in the show demo sporting a tantalising 'Top Secret' flash.

Although still based around the concept of time, *Zelda Gaiden's* storyline subtly shifts the game's impetus away from rambling epic to something with rather more urgency. It seems that the parallel Hyrule is in danger of a collision with its own moon and, of course, it's the player's task to stop the calamity happening. New additions like an onscreen sundial and a giant ornate clocktower count down the seconds to the disaster, but rather than limit the game to a set timescale, the player can find or buy ways of slowing time down while he solves the mystery. If nothing else, it's a refreshing change not to merely rescue Princess Zelda yet again.

It's easy to see that many of the new ideas in *Gaiden* come directly from elements that had to be left out of *Ocarina Of Time* for either time or space constraints. The quirky masks concept must have seemed an idea just too good to waste and *Gaiden* rightly gives it its moment in the spotlight. This time there are around 20 different masks for Link to find. As a further refinement, each one now physically changes the hero into a 'Linkified' version of the race it represents. The results may be a bit predictable – Link as one of the rock-loving Gorons becomes stronger, and as a water-dwelling Zora develops fantastic swimming abilities – but with so many different masks available the range of possible solutions to puzzle solving are admirably vast. Music also gets suitably expanded upon as each mask also comes with an instrument on which to perform in the same way you previously learned songs in *Ocarina*.

The Spaceworld demo of *Zelda Gaiden* allowed visitors to choose to play through a variety of set pieces, although with such limited time available it was only the truly dedicated fan who managed to try their hand at all of them. 'Contests' included Link in a three-horse gallop, rolling across the landscape as a curled-up Goron, and collecting sticks for a group of comical beavers as an aquatic Zora in a swimming contest. There were also boss encounters, although these tended to be rather unimaginative single-enemy-in-dungeon battles and puzzle-based platform levels. With a worldwide release scheduled for around March next year, Zelda's 'side story' could end up being far more important for the N64 than Nintendo obviously intended it to be.





Talent Studio





Possibly the most bizarre Nintendo creation at the show was the long-delayed *Talent Studio* disc. Utilising both the *Paint Studio* and the Capture Cartridge, showgoers could create their own virtual puppets and present them in a surreal Japanese pop video, much to the amusement of passers-by.

F-Zero Expansion Kit



While the cartridge version of Nintendo's futuristic racer hinted at the game's track-creating capabilities with its random course generator, it's taken this DD disc add-on to truly realise its potential. Combining the disc with the original cart now adds two new options to the *F-Zero X* menu – 'Course Edit' and 'Create Machine'. The graphics may be slightly on the functional side, but the menu system, which allows you to construct cars from a wealth of parts and then to race them on player-created tracks every bit as tortuous and complex as any thought up in the labs of EAD, is easy and intuitive to use.







Of all the 64DD titles, only *F-Zero* made real use of the DD's capabilities

Paint Studio





Without a printer to output your masterpieces, there really seemed little point to the 64DD *Paint Studio*, but hundreds of Japanese children happily queued for the chance to draw their own version of Pikachu. With the addition of the Capture Cartridge they could add their own faces to the picture, too.

Mother 3





While finally playable, it was nonetheless disappointing to find Shigesato Itoi's continuation of his popular roleplaying series *Mother* still only 50 per cent complete and not destined for release until next May at the earliest. Along with the switch to a 3D environment, the new storyline seems a light year away from the smalltown America vision of *Mother 2* (aka *Earthbound*), with pig armies jostling for attention with cowboys, retro-fitted technology and rock bands. At least the turn-based battles retain a link with the past and sport the familiar stomach-churning psychedelic backdrops.



Three long years in the making, *Mother 3* is still only 50 per cent complete

Other Space softs



Mario Party 2
An almost indistinguisble sequel, with new boards and more subgames.



Kirby's Dreamland 64
2D platform action in a forced-3D enviroment for the Game Boy hero.



Custom Robo
Virtual-On-style robot battles mixed with a *Pokémon*-style RPG and trading.



No.1 Bass Fishing
Fishing sim from the creator of *Mother 3* which makes use of a custom controller.



Excitebike 64
Extremely playable dirt bike action with Expansion Pak-enhanced visuals.



Sim City 64DD
The same old game stretched to dizzy new heights with detailed 3D cities.

Super Mario RPG 2







Despite the impassioned pleas of thousands of fans, the previous Square-penned *Super Mario RPG* never did make it to the UK. So news that this follow-up (programmed for Nintendo by Intelligent Systems) *will* eventually reach British shores should please those who struggled with the cast-iron NTSC regional protection of the original. Like its predecessor, *Super Mario RPG 2* is a far from standard Japanese roleplayer. Although battles are turn-based, attacks are far more dependent on joypad dexterity than menu choice, and map wandering is kept to a minimum. Graphically, although it doesn't seem to be for any reason other than it looks good, all the characters are now depicted in paper-thin PaRappa style, while the world they inhabit remains firmly 3D. Like the first game, however, it seems that *Super Mario RPG 2* will succeed or fail on how well the characters are depicted in a drawn-out story. Some gentle ribbing and fun with the Mario mythos proved the saving grace with *SMRPG*.

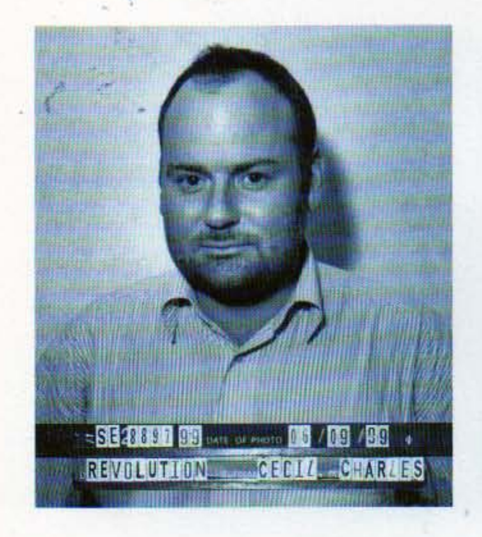
Doshin the Giant

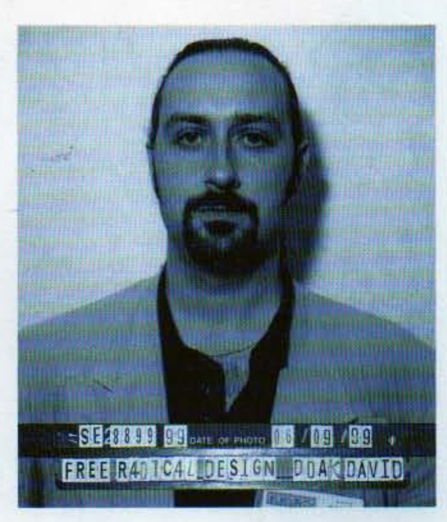


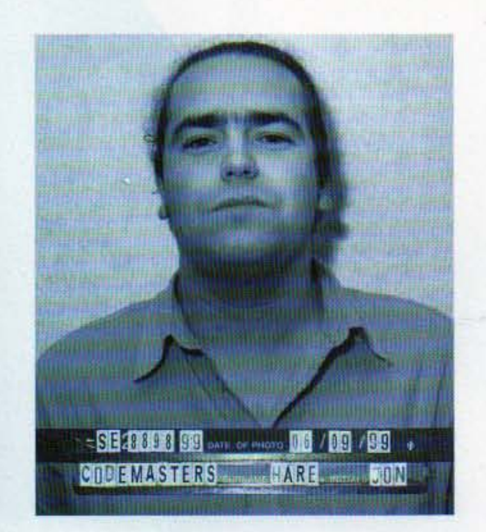




You certainly couldn't miss Nintendo's 64DD flagship character, because an enormous inflatable of the yellow giant with a suspiciously placed 'outtie' bellybutton dominated the show's skyline. As a game, though, it was sometimes hard to spot the appeal of Nintendo's first 'God sim' and just why it needed to be on disc at all. The Spaceworld demo came across as a sort of low-rent *Populous* as you wandered around the landscape either pandering to the resident islanders every wish – in which case you became a love giant – or took it upon yourself to try and wipe them out – which conversely made you a hate giant. Needless to say **Edge** took great delight in rescuing a stranded soul (who duly dispensed love hearts as thanks) only to dump him far out to sea. The amount of hate skulls he then spat in **Edge**'s direction before he drowned was really quite astonishing.





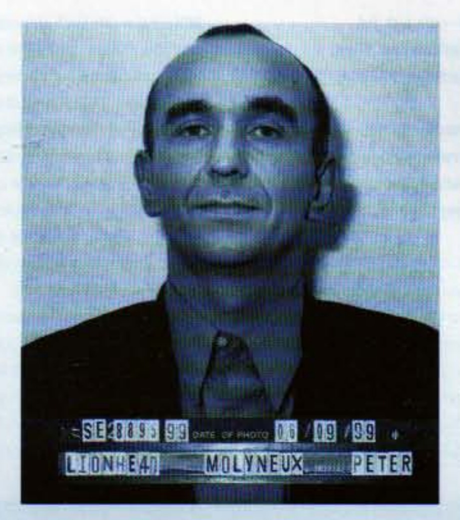


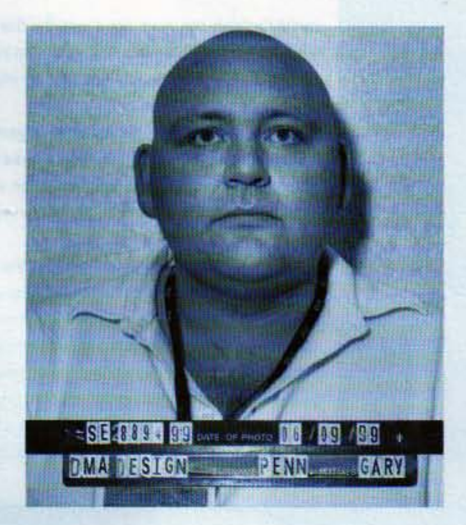
The Usual Suspects

What happened when Edge took six of the industry's most notorious gaming visionaries into a room for questioning…









Revolution Software's **Charles Cecil**, Free Radical Design's **David Doak**, Codemasters' **Jon Hare**, Evolution Studios' **Martin Kenwright**, Lionhead Studios' **Peter Molyneux**, and DMA Design's **Gary Penn**. A disparate bunch of videogaming luminaries, each with years of industry experience and a legacy of quality behind them.

During ECTS, **Edge** bundled them together into a room and asked them to mull over the state of the industry today. They discussed, they argued, they joked, they even managed to reach some conclusions.

These are the edited highlights...

Edge: Everyone is talking about PlayStation2 at the moment, but there appear to be two schools of thought, one which says PS2 development will be like what they're currently doing on PC 'plus a bit more', while the other says it's going to turn development on its head. What are your thoughts?

Peter Molyneux: I think anyone who thinks it's what they're doing on the PC at the moment 'and a bit more' is kidding themselves a lot, because it's like marrying all of the power of the PC – only a lot more – with all the quality of a console game. And it's surely going to be marketed as the big technical revolution where you really can see people cry and you can see people laugh...

Gary Penn: Which already happens, though.

PM: It does already happen but the quality of the game is going to have to be so high that it's going to be so tough to make a game. I mean, even now it's two years for a lot of titles, and that's going to extend another bit further. It's not *bad*, I just think it's inevitable.

Jon Hare: Development work is exponential. I mean, compare working in 3D to working in 2D – we had to quadruple our graphics people on each product, at least.

David Doak: And it's a different way of thinking. You often had a fixed camera but then all of a sudden you had multiple possibilities.

JH: We've gone from doing games with teams of three to teams of 15 and now we're going to go up to five times that – 75.

Martin Kenwright: Maybe growing teams is not the answer, though. Maybe we should look at the film industry, which is more mature – I think something like 10% of the overall key content comes from the film studio, with people firmly assigned to one place. Maybe we should be moving more towards outsourcing CGI, and that's what our new studio is all about – we've invested in an Oscar-winning CGI company, we've invested in music studios, and writers, plus people from the theatre industry. It's not the technology that people should be frightened of, because that will come, it's just the mindset.

Charles Cecil: I think we need to look at it and say, 'What can we do?' Rather than just having a few more polygons on a racing game, or increasing the frame rate...

GP: But there is a tendency, certainly in Europe and the US, because you can do it, you should. And this is

PM: But that's what we're trying to do at Lionhead. We're trying to use the internal team to inspire people externally, and using really, really good creative people to go and inspire teams of lots of people, and that's the only way I can think of keeping the small creative element, where you can do some mad stuff and keeping up the quality rate.

CC: Do you believe in middleware?

PM: [Smiles] Well, I think it's a short-term solution.

CC: But do we believe it's going to work? Because in theory it's wonderful. And then you get back to the studio system Martin was talking about, where you don't need to worry about your own technology...

MK: Well, we all share around technology and things – that's what Microsoft's there for.

DD: Well, that's step one. But you reinvent the wheel. And everyone's doing it. For us, Free Radical's small,

SURNAME FORENAME Kenwright Martin
COMPANY Evolution Studios
COMMENTS
"Maybe growing teams is not the answer. Maybe we should look at the film industry, where I think something like 10% of the overall key content comes from the studio"

something I find disturbing about the PlayStation: on the one hand you get PlayStation2, on the one hand there's commendation for the fact that, yes, they've given you more material and containment space than you could possibly need, but of course we all know that most developers in the west will never use it. Whereas in Japan they're a lot more disciplined about how they use that material. In Europe and the US we just jump in and go, 'Right, let's push the envelope, right now...'

MK: It's the two-types-of-developer issue: you have the factory developer – the strong SquareSoft model – or the model that's like the UK car industry – the 'boutique' developer – someone who's no more than ten to 15 people who seem to have a level of communication where they can create something different.

we're a startup coming from an experienced background, but when you guys say 75 people, I passionately believe we can do it with a small team. Our core team is made up of people who have been together for three years now, and we're focused and we have to believe we can do that – and we are prepared to die trying. I think it's all about craftsmanship. Y'know, there are the big movies, and some game creators are making the equivalent of 'Antony and Cleopatra', so they have hundreds of extras. But the film industry's the same – small teams of focused people can still do it.

Freedom of choice?

JH: Isn't it just about going where the fuck you want? And then finding out whether or not [publishers] say you



can't? Certainly ten years ago it was like that – we just did what we wanted until someone said, 'You can't do that'. Now, though, people say 'You can't do that' so much that you just don't bother.

CC: But you guys were the real kings of gameplay on the Amiga, and that was something that we did really well, and the Americans were big on PC and production values, and so there was a big difference, and now the whole thing has converged. I think the market's changed.

MK: Let's both learn a lesson off each other. Okay, the UK has an identity – where angels fear to tread, as you say. It's like the UK sportscar industry – I think we have more little independent sportscar companies in England than there are in the whole of Europe, so it's a cottage industry. We all grew up with ZX81s, where we were four million potential programmers, thank you Mr Sinclair. Where else in the world did this happen?

CC: But did that culture put us in good stead for the future?

JH: It never has done. We never capitalise on huge industry.

MK: Well, we're always the first to innovate, and then everyone else imitates.

JH: If you go back to the 1850s it's exactly the same bloody story. You can go back as far as you like. If your mindset as a country is naturally to innovate and create new things, but not exploit them...

PM: The best story I have about this is when I was talking to an American company director and he said, 'Yes, I've always found the English very *creative*', but the way he said 'creative' was like saying, 'Well, he needs a lot of money, what a waste of time', and that's the problem. If we could ever marry those two together.

GP: But surely that's the skill of publishing and marketing as a whole, to exploit, exploit, exploit? To take something that has a distinctive quality and then exploit it. And find ways to exploit it.

MK: But we're such a non-entrepreneurial type of nation. I mean, you go to a UK bank and say, 'Please can I have a loan for £2,000 so I can eat beans on toast for the next six months while I'm making a game?' In America the bank is more like, 'Okay, well, we'll have a 15% equity stake and we'll put a guy on the board'.

Edge: These financial limitations must hurt break-off groups...

JH: We've all seen break-off groups struggle. We've seen about three breakaways from Sensible and they've *all* struggled in the end, it's just *so* hard to start now. I feel really, really sorry for people who want to start now because what hope do they have? I mean, in order to survive the last few years of Sensible's existence we had a huge amount of money that we'd made in good years to fall back on, but without that, that'd have been the end.

DD: That's the position we're in. It's quite funny because I'm sitting here thinking maybe I'm naive Johnny-come-lately but we are such a breakaway. Admittedly with very good product behind us, but it's like that. You have all these decisions to make, and everything's waiting, and the whole thing is contingent, you have to get it right every time because there's no safety net, and what safety net there is will just crash into the floor because everything's falling away.

JH: We never used to need a safety net because it was so ridiculously cheap to program games. But later, when Mirrorsoft went down, our company was really buggered: three quarters of our turnover disappeared, and at the time we had *Sensible Soccer*, *Cannon Fodder* and *Megalomania*. *Megalomania* was published but we didn't get any royalties, and we went to our bank manager and said, 'Look, we need a 20-grand overdraft to finish these games – *Cannon Fodder* and *Sensible Soccer*', and he said, 'No way'. And you take a plastic disc to the bank, and the bank manager just has no idea of what it's worth. [Laughter] It's funny, isn't it? And we couldn't get this overdraft. So then we had to take out a company overdraft and then Chris [Yates] and I had to personally go to our banks – different banks – and say, 'We need an overdraft'. And between the three sources we managed to get enough money to fund *Cannon Fodder* and *Sensible Soccer*. Otherwise, again, we would have finished there and then. It's was *crazy*.

CC: That's amazing.

DD: For me, with Free Radical Design, it was just a fun but brutal introduction into the world of finance. It was just, 'How do I do want I want to do?' And suddenly you're just sitting at home, starting out, pretending to be a company. [Laughter] And you're sitting there, in your dressing gown, answering the phone to these people, and trying to get the whole thing working...

PM: 'Just putting you through...' [Laughter]

DD: 'Er, can you hold, because my dressing gown's just fallen open.' [Laughter]

SURNAME FORENAME	COMPANY
Doak David	Free Radical Design

COMMENTS

"To me, Free Radical was a fun but brutal introduction into the world of finance. It was just, 'How do I do what I want to do?' And suddenly you're sat at home, pretending to be a company"

A question of cash

JH: Once, though, you didn't make money by going out to make money, you started out doing what you wanted to do. Okay, you wanted to make a living out of it, then you

realised that you were quite good at it, and then you worked out ways of doing better out of it, but I would hope that the sole focus of no one around this table was to make money out of videogames when they started.

MK: I don't think when we started, no, but certainly halfway through...

JH: Oh yes, you go through stages when you cash in, but the analogy is, some companies put money first, second and third, and I'd hope that people here would put money first, maybe, and then something else second and something else third.

CC: But is that first type of developer you describe successful?

JH: It depends on how quickly they get in and out.

GP: But it needs a certain level of cynicism and clarity to be able to exploit to the extent where you will make money.

CC: Yes, but in this day and age I think the gamebuying public are too bright to buy bad games.

GP: I disagree, actually. I think it's an underestimation on developers' parts, and we're as guilty as anybody, and I know Mr [Phil] Harrison touched on it at the Develop conference but we do still tend to write so much fucking stuff ourselves. Punters don't see half the shit; they see the evolution and they go, 'That's fantastic', but they don't know how it's done. It's the simplest solution in the world and they get some entertainment. In my opinion, there are a lot of very bad games that have sold extremely well, but that's fair enough. The people buying these games have never experienced this kind of thing before, but they get enough of a kick out of it to make it worth the investment, so I don't see a problem with it.

CC: I disagree, I think that generally it's the best game that will sell, and we have such a diverse audience that most games might be appealing to someone. We might think that – again, this is really bad – but actually it's a younger age group that will really enjoy it.

GP: I wouldn't say younger, I'd say less experienced.

CC: Well, yes, because as hardcore gamers we might think something is absolute rubbish and very simplistic, but to somebody who's less experienced it might be fine.

PM: I agree with you totally, because when I did *Theme Park* I actually felt ashamed to show the game to a lot of the press, because people looked at it and thought, 'Oh my god, this looks a bit 'kiddy-fied'', and, well, it went on to sell three million copies. And it was cool that it sold that amount, but at the time it was going up against 3D shooters and all sorts of really hard stuff, and I think Gary's right, I think a lot of the time we do things because we want to do them...

JH: But why the hell not? That's how most creative people in most creative industries have done it all along.

PM: But the cool thing is to apply your creativity to other problems, to say, 'Look, if I really wanted to play a game, and I was really starting off in this games industry, and I'd never played a game before, what sort of game would I want to play'?

JH: I don't know. You just develop an instinct where you don't think about it, don't you?

SURNAME FORENAME	COMPANY
Cecil Charles	Revolution Software

COMMENTS

"Generally it's the best game that sells... but as hardcore gamers we might think something is absolute rubbish, while to somebody who's less experienced it might be fine"

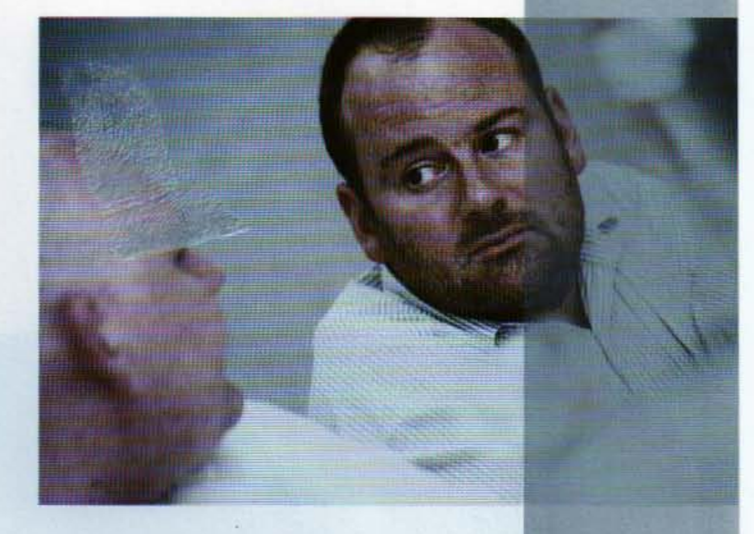
You apply your creativity. There are hundreds of ideas you bin as soon as they enter your head, because they're rubbish.

The call of the casual gamer

MK: I think it's the developer's field of view. I mean, developers will see a target and want to beat it. A developer will produce a driving game and say, 'Oh yeah, but it's got this and this that's better than in *TOCA* or *Colin McCrae* or whatever', and really, if it was someone outside of the industry, they'd take a big step back, and they'd be comparing it like, 'Well, on Sky Sports when the rally was on the other day, it didn't have that feature', and I think that is crucial.

JH: Do you think people are doing that? That people are self-referencing more?

PM: I think the trouble is that there's too much inspiration coming from past products and not enough inspiration from coming what what you really, really want. And what people really want is to be entertained.



MK: We're into this family room now, away from the bedroom. The marketplace is supposedly ten times bigger.

GP: That's where the big shift will occur: convenience. And convenience on all sorts of levels; convenience from the point of view of getting a system that you can play with, convenience from the point of view of being able to get the fucking thing in the first place, convenience from the point of view of being able to pick up the game and play it. How many games here at ECTS are massively inaccessible, for all sorts of reasons? Maybe it's layers and layers of front-end that you have to wade through just to get to play the game. Maybe it's the fact that the character you're playing with is so bizarre that you don't know what to do with it. Maybe it's that the objectives in question are so diverse that I've got to read this big fat manual.

MK: But you have two markets – you have the hobbyist marketplace, where there's a consistent stream and you're guaranteed sales, and you've got the far broader area, with the casual gamers, the biggest audience, but no one actually stops and asks, 'What do they want'? And I don't think the format exists that can address it all. The PC won't work, it's too complicated, you have the keyboard in the way, but we can see the shift: all the big players are preparing new hardware and they're addressing the problem, saying that they're building entertainment centres.

JH: The first question people ask me is, 'What's going to sell'?

GP: But surely they should be thinking about *how* do we sell what we have?

JH: People don't think like that. This comes down to vision. Generally, people in the less creative parts of a publishing house do not have vision, they don't understand that something could be a new genre. It's what we want to do, 'cos we've all worked in new genres, years and years ago, but now for some reason you can't make new genres any more. Why not? Because it won't sell. Well, why?

PM: I don't really agree that there aren't new genres being created. A redefinition of a genre is a new genre.

GP: The originality has just been diluted, I think that's it.

JH: It's been hugely diluted.
GP: I think *Command & Conquer* is a very good point. I think there's a lot originality in *C&C* for all sorts of reasons, and even in some of the clones there's a lot of originality. It's just spread in different ways, so it's sometimes hard to spot.
JH: If you try to go too far people don't want to know.
GP: But look at *Tomb Raider*. You have a bird in an Indiana Jones environment. That in itself is odd.
JH: That's one idea that took someone two minutes to come up with.
GP: But someone did.

SURNAME FORENAME Penn Gary
COMPANY DMA Design
COMMENTS
"Part of the developer's job isn't just to innovate with this fantastic new idea, he has to make that fantastic new idea as accessible as possible. And that in itself is a major fucking step"

JH: But my point is that that represents *an* innovation. It's not innovation upon innovation upon innovation. You're not getting total leaps forward and that's what we're losing. I agree with Peter that it's good to have small leaps forward, but no one's taking a gamble on those big leaps forward. So we're not getting a variety of product where something's the same, something's slightly different, and something's massively different.
GP: Even if you make something massively different, don't forget about the punter at the other end who has to understand it. Part of the developer's job isn't just to innovate with this fantastic new idea, he has to make that fantastic new idea as accessible as possible. And that in itself is a major fucking step. Then he has to convince the publisher, and the publisher has to actually understand…
DD: But I think you're right to address introspection and the industry competing with itself – it's something that sometimes works, but it often reaches stagnation. Look at the *Command & Conquer* genre – that whole thing has become so esoteric.
GP: It's really hardcore in terms of it being completely inaccessible to the real world as far as I'm concerned. That doesn't mean it shouldn't be done because obviously there's still that hardcore market. There's certainly a big shift going on at the moment. The hardcore market's not as dominant as it was.
JH: Do you think there's too much respect, from young developers coming in, for existing stuff that's already out there?
CC: I don't think it's about respect, it's just so easy to copy something and make it slightly better.
PM: It'd a deeply scary thing to try to copy someone. And if you're starting out, everything else is new, and you're innovating as well, Jeez…
GP: But you don't know how it's going to work out. You could build this massively original toy set and you could sit there and think, 'Right, well they're playing with this thing in a way that no one's ever played with a thing before, what do I do with it?' I can attach to it an established set of rules, perhaps a race set of rules, it might relate to that, but I've got to somehow exploit this toy, and perhaps I might employ some bizarre rules on top of that, and then you have two layers of originality, and, urgh, that's getting more confusing.
DD: But at some point it snaps.
JH: It doesn't have to snap. You have to put it together, which takes a lot of time and juggling, and it might overrun and you might run out of budget, and that's when it falls down.
CC: And that's why it's so important to play your own games and realise that this vision that you had just isn't going to happen.
JH: Oh, I agree. I'm not suggesting that all games should be made like that, I'm saying that we have no indie market of games, we have no one trying to do alternative stuff because it's too expensive for anyone to do it – it doesn't make financial sense to the publisher or the developer.

Movies, games and videos

PM: I think that the innovation's there, but now you have to match it with the most gorgeous artwork. No one wants to play something that looks shitty.
Edge: What about Game Boy *Pokémon*?
PM: That is the epitome of superb design.
GP: Yes, the toy set is so functional.
PM: And that's what the genius is of the Japanese, in picking a character and not rendering it in millions, billions, zillions of colours, but just enough to work, and it's the epitome of brilliant, brilliant design. You don't have to have lots of colours, for example, to make it work. The trouble is, with the next generation of software, what are we all going to want to play? We're going to want to play the most realistic car racing game, and play with the most realistic characters…
JH: Are we?
PM: To start off with, we *are*, Jon.
JH: You don't *just* want to watch action films. Just because you've got special effects doesn't mean everyone makes movies packed with special effects.
PM: If you buy a laserdisc player, what's the first movie you watch? You don't watch some arthouse movie, you watch a big blockbuster, and that's what you will want to

play. [Cacophony of unconvinced grumbling from around the table]

JH: You need the arthouse movies coming through to keep that variety.

PM: The gaming equivalent of 'Blair Witch' – $10,000 to produce, incredibly creative – will come about, but not in the first wave.

JH: If we generally agree that publishing costs are going to go through the roof then we're going to get less innovation because less risks can be taken. Innovation goes hand in hand with sensible risk taking. We say that to start with, but in two or three years' time there'll be a new machine out there anyway.

PM: It's a completely personal opinion borne out of fear as much as anything else, but you look back at the British film industry and you say, 'Just a minute, the British film industry actually wasn't bad'. You know, maybe 40 years ago, it was up there.

GP: But it didn't exploit itself as well as the Americans did.

PM: The Americans thought, 'Just a minute, people want to go to see a film to be really, really entertained and they want to see spectaculars', and so they thought they'd start making spectacular, expensive films, and sure enough we went to see them. That's what we wanted to see. Now, after all these years, it's all settled down and we want to see these educational and challenging films.

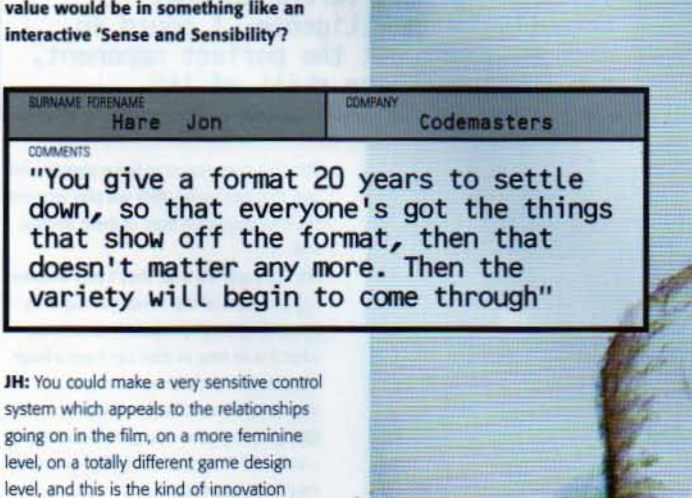
GP: It's the same with television. When you first watch it, *everything's* brilliant, everything, even the complete dross.

Edge: You're drawing parallels between videogames and the movie industry – do think people would want to play a videogame version of 'Sense and Sensibility', for example?

PM: I think the answer to that is, the movie industry didn't realise what it had when it had black-and-white movies. You had Charlie Chaplin standing up and saying, on record, that talkies will never work, because the type of films they were doing were slapstick films, and it spoilt it a bit if you actually had to talk a lot. They didn't realise the global vision of what they had. I think the same is true of the videogame industry. We have no idea what it's capable of doing.

JH: You give a format 20 years to settle down, so that everyone's got the things that show off the format, the action stuff, then that doesn't matter any more. If that happens then the other stuff will start to come through because the variety needs to be there. At the moment there's no demand for variety because the machine hasn't got a long enough shelf life to warrant that variety. If you want arthouse games, of a thousand published you'll maybe get two or three. There's not that sense of a 'library' you have with film.

Edge: Part of the value in gaming lies in watching your character's actions on screen, but moreover controlling your character. Where do you think the value would be in something like an interactive 'Sense and Sensibility'?



JH: You could make a very sensitive control system which appeals to the relationships going on in the film, on a more feminine level, on a totally different game design level, and this is the kind of innovation which we never see. Obviously it's going to happen at some point but we probably won't be bold enough to do it.

GP: But you're a punter too far ahead of his time in that respect, because you're so overexposed to the medium, and you're so appreciative of how it works, that your demands and expectations are massively increased, not increased in terms of power, but in terms of how it sounds, how it feels, how you touch it, how things interact, how they feel the pain, how all these little microcosms work. Punters haven't got to that level yet.

JH: But they'd accept it if it was presented to them in a good way. The problem is you can't get to the stage when you can actually do that.

GP: That's where you need time.

CC: Videogames are just a medium for delivering entertainment. So if you talk about 'Sense and Sensibility', I think 'Sense and Sensibility' would actually appeal to an extremely wide market, but as I think we all agree you mustn't draw parallels directly because, fundamentally, you're talking about something with direct control of the character, and film is exactly the opposite…

Edge: Are you simply creating something that is just slightly less passive entertainment?

GP: There's a certain mood, a certain tone in that type of film. It's basically a case of saying, 'Well, in a game context if I copy that exactly it isn't going to fucking work'.

MK: There's no such thing as an interactive movie.

GP: You don't even look at it in terms of movies, you start looking at what's going on in terms of relationships because that is exactly what interaction is all about.

CC: And it's the relationship you have with the protagonist, and the fact that in a film you have the intensity of actually following someone's emotions through that, whereas if you're actually directly in control then that completely reverses the whole thing, and in some respects I can understand that, and it gives us a lot of strength and advantages, but if we try and mimic the film industry then we going to get into all sorts of trouble because, as Martin

says, the interactive movie concept is ludicrous.

JH: With *Sex'n'Drugs* we tried to do what we considered was the right way to make an interactive movie, and it's extremely hard work – there are loads of one- and two-second clips and stuff that are meant to be linked together seamlessly. Now, we never got the chance to see whether it worked or not, but I'm pretty sure we have got further down the line than most people in getting it to work. Now, it might not have worked, but we would have then had another shot at it with another game, with that experience in the bag, and with another one we might get it right. And this is the problem, we're not getting the opportunity to make mistakes. R&D is about trial and error, it's getting the chance to make the errors to learn to make less next time.

DD: It's an unobtainable thing, I believe. People think, 'Oh, why can't you make games where people can tell their own stories?' Well, because 90% of people will tell very boring stories. But what I see working is that you tell people a story which is essentially linear but, by having them strongly identify with the characters as they go through, they feel like they're making the choice – it's the illusion of choice. It's the same thing when people read books. If you look at the interactive Fighting Fantasy books, now they've been going for a long time, but they've never become mainstream because people don't want that. The experienced reader wants to be pulled along by the twists and they want to anticipate...

CC: Everybody likes a story, and my opinion on linear story-based games like the adventures Revolution has produced, which are essentially very linear, is that a very wide audience actually sees the game and understands what they're going to get, and I think that's very valuable. We were talking earlier about a very hardcore gamer versus the wider audience, and the adventure type of game is very accessible to the latter. People who have never played a game before can pick one up and they can get into it very quickly.

JH: Without having to be dextrous.

PM: *Providing* you don't make them so fucking illogical.

GP: Is this not a case of, if you look at traditional physical toy rather than a digital one, you've got your Barbie doll, this is the character that you're going to use in your story, and as a kid you're making up the story as you go along – ie, effectively you're laying down a series of rules and a framework from which you play...

PM: That is exactly what *Black and White* is. It allows people to make up their own rules within the context of the rules of the world.

GP: So it's basically an illusion of free form.

JH: The game is the referee. In football there is a referee and there are laws, but within those laws you can do anything, you can kick someone in the head, you can pass left, right, whatever.

GP: There's absolutely no reason why you couldn't do a story in that context, providing a collection of characters, making sure that the rules are so water-tight that the player can make it up as he goes along – to a degree.

CC: But they're both legitimate, I don't think there's a right and a wrong. In *Black and White* you do very much tell your own story, but then you have the games that we're talking about, where you have an environment within a plot that has already been predefined.

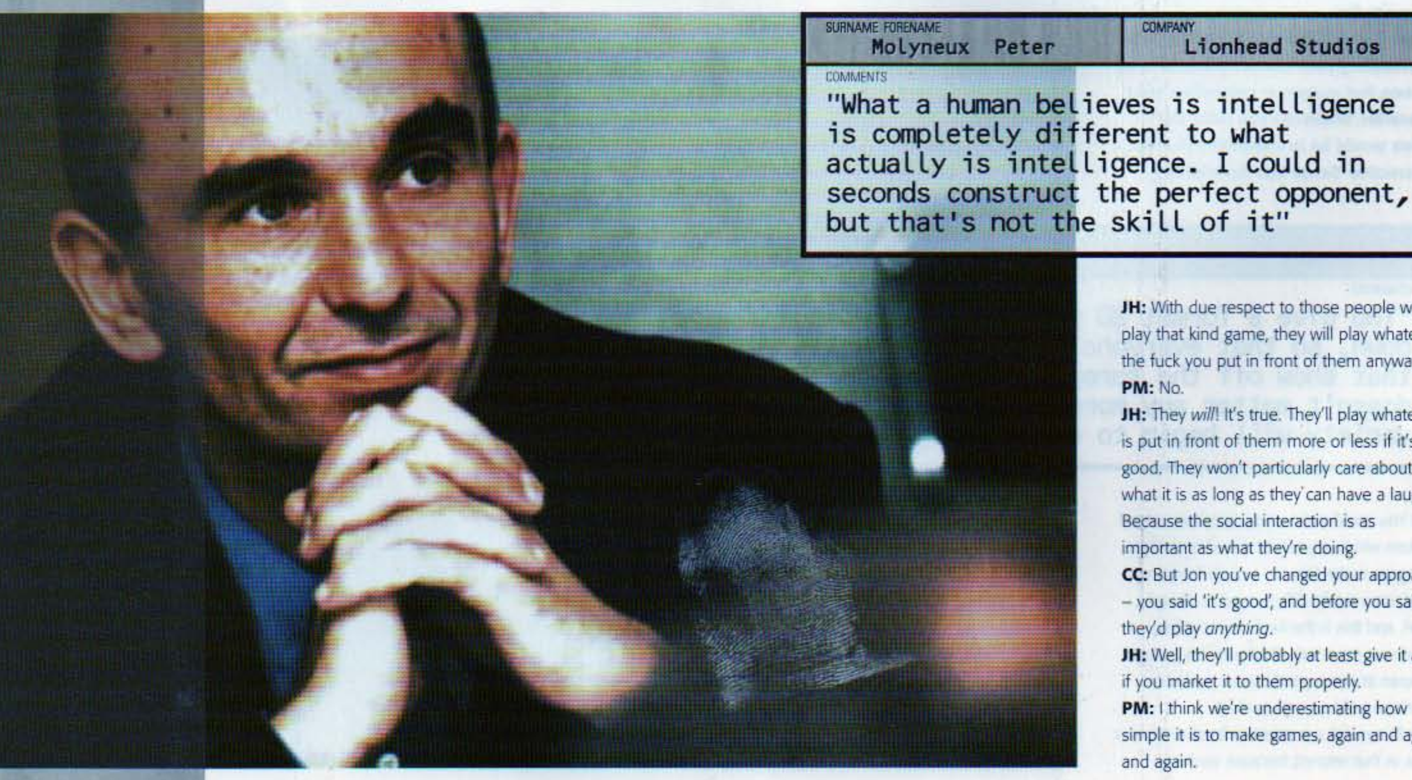
JH: With all games it falls down to two factors: how much do you hold the person's hand and how much freedom do you give them? Every element of every game is the same.

The post-pub, play-anything generation

MK: Since you're all talking about adventure games and roleplaying games, well, I like pub'n'play games – you get back from the pub and you just want to have a bash at something. That is the mass market.

CC: The youth market, the market for the PlayStation, has gone so wide now...

GP: But it's not necessarily getting software support. It's reached a point where it's got a lovely shape with lots of different demographics, but is it necessarily getting the widescale support it should be getting?



SURNAME FORENAME
Molyneux Peter
COMPANY
Lionhead Studios
COMMENTS
"What a human believes is intelligence is completely different to what actually is intelligence. I could in seconds construct the perfect opponent, but that's not the skill of it"

JH: With due respect to those people who play that kind game, they will play whatever the fuck you put in front of them anyway.

PM: No.

JH: They *will*! It's true. They'll play whatever is put in front of them more or less if it's good. They won't particularly care about what it is as long as they can have a laugh. Because the social interaction is as important as what they're doing.

CC: But Jon you've changed your approach – you said 'it's good', and before you said they'd play *anything*.

JH: Well, they'll probably at least give it a try if you market it to them properly.

PM: I think we're underestimating how simple it is to make games, again and again and again.

JH: I agree – it's got to be simple to interact with, but it should have a level of complexity that's as transparent as possible for subtlety. That is what we try to achieve.
GP: This is where you need post-production. We don't normally get the time for post-production – you spend all this preproduction time building the toy set in the first place, so that you can exploit it in the production phase and actually make a game that works, then you've got the post-production afterwards to start editing the content. We never get the time for that – we always underestimate the fact that it's we will need the post-production time.
PM: We're all scrabbling to make the version, and as soon as we make it, we release it.
GP: It's company pressure, though.
MK: It's the whole idea of being immersed. You get into something within a few seconds, and you're in there and it's plausible and it's believable, the screen is right, the sound's right, the view's right.
JH: The limitation for innovation is quite limiting in that context because developers have mastered that stuff fairly well, and it applies to a fairly limited amount of genres. Aren't we talking about new genres?
MK: No, let me explain. So, where do you go from there? All right, well, we can

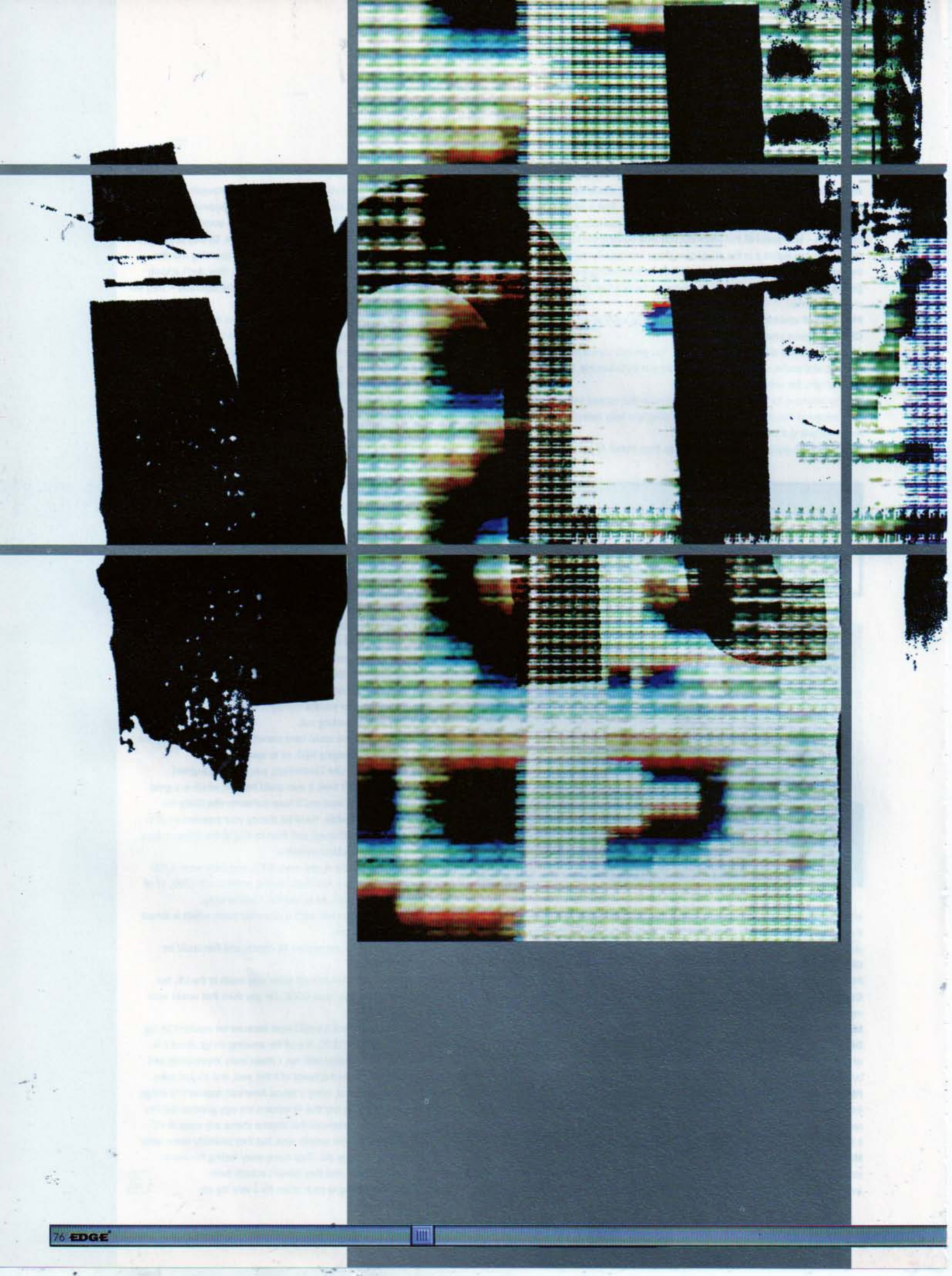
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Kenwright Martin	Evolution Studios

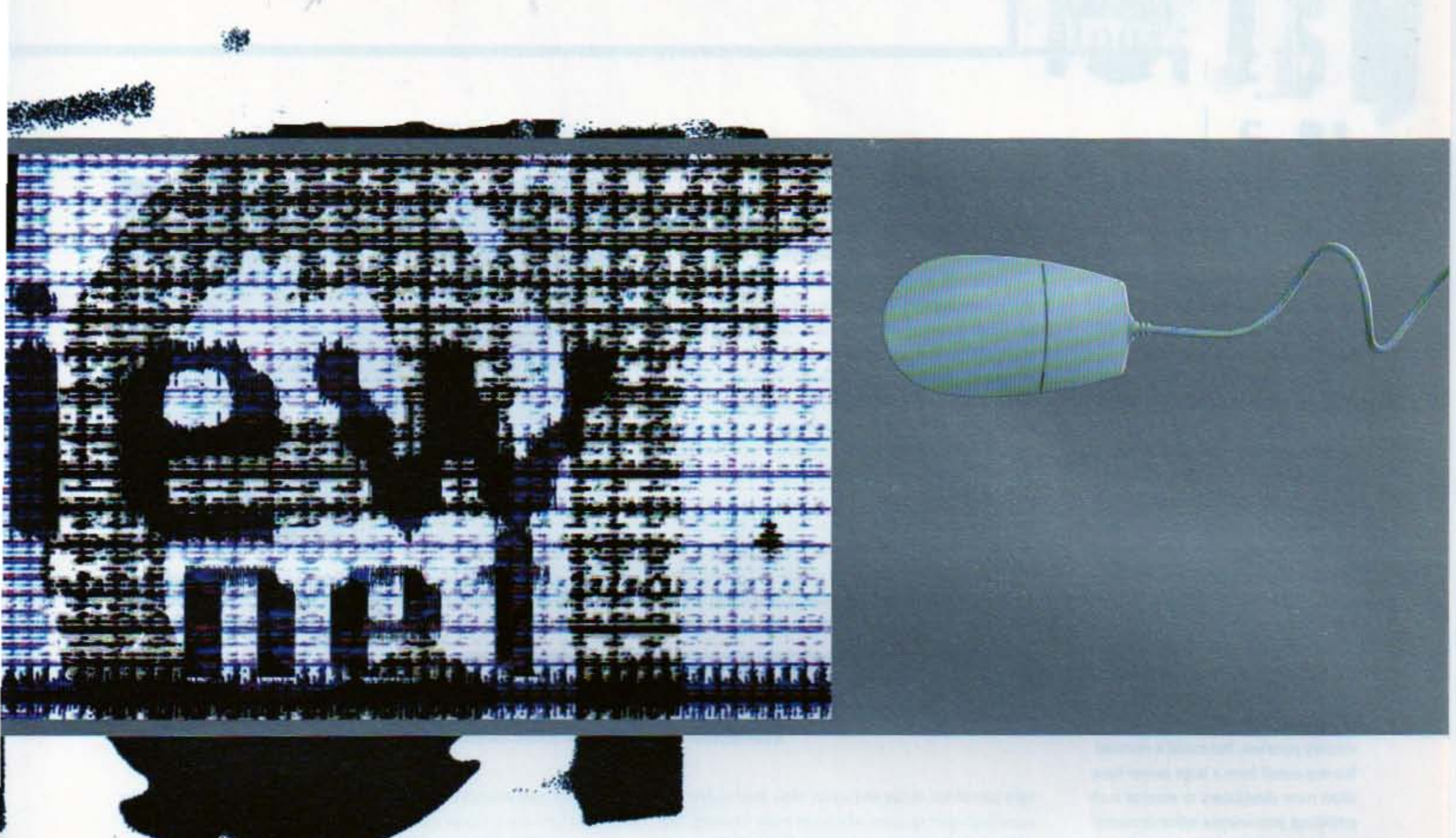
COMMENTS
"You're all talking about RPGs, well, I like pub'n'play games – you get back from the pub and you just want to have a quick bash at something. That's the mass market"



introduce algorithmic-based AI and stuff like that, but then, as with a game of chess, there are a couple of sets, a couple of moves, and you can pick up the rules in minutes, and run all the way...
GP: It's not about how complex the AI is, it's how well it's used.
PM: It's how well it's disguised.
GP: If there's something running towards you in a really stupid and bestial way, it's far more interesting, entertaining, scary, emotive...
MK: It's got to be consistent.
DD: But the big challenge with AI is actually the dumbing down part of it – that's where the craftsmanship comes into it. And people want to see errors being made by the computer.
PM: What a human believes is intelligence is completely different to what actually is intelligence. I could in seconds construct an opponent which would be the perfect opponent which would beat you every single time – that's not the skill of it. The skill of it is to construct a code that actually is...
MK: I am actually saying that in a roundabout way. That's what we're working on... It's just hard to elaborate on... We're just trying to create a human being – it feels like we are creating a human.

GP: Your point about AI, I think that's an interesting point of view. The way developers as a whole will approach the problem of 'I want to get some character across, what's the best way to do it?' Their answer will be AI. So they're going to build this massively complex AI system, spending months, years even, developing something when they don't actually need it. This is what's admirable about the Japanese – they will use just enough to get the job done.
PM: That's a very good point. Quite often in development you spend three months doing the most sophisticated AI editor that has ever existed and then realise you could do it with one 'IF' statement, actually. I think that the games industry is still incredibly primitive because we just rip down our labels and make them into huge AI mistakes, huge gameplay mistakes, over and over again. It would be cool if we could stop that.
JH: The problem is that we're working within a fairly restrictive environment. You're almost forced to look at your labels, so to speak. There's only so far we can move in the actual commercial environment in which we sit. It's not that free, it's fairly restrained, there's not a lot we can do. Technology's fairly expensive, and it's technology we haven't got that much control over. So we almost have to sit there and say, 'I wish we could do this', because we really can't do the things we wish we could do. I've been doing that for 12 years. There are just some things that you just cannot do. In theory these things can be done, but no one's ever going to be stupid enough to give you the money to do it, and even if they do, they end up backing out.
GP: Perhaps we could have something where developers are basically exchanging R&D, so to speak.
MK: Sharing? Like Glastonbury, you mean? [Laughter]
GP: No, I don't think it ever could happen, which is a great shame. But at least you'd have someone else doing the legwork for a while. You'd be sharing your experiences as to what you've achieved, and then looking at the different ways you've both tackled problems.
PM: The trouble is, you went to E3, and there were 1,750 games on show. And that's the big problem: of 1,750, 17 of those will actually be successful, if you're lucky.
GP: The market will reach a saturation point, which is almost where it's at now.
CC: The public are spoiled for choice, and that could be problematic.
GP: We don't talk to each other very much in the UK, but in America, they have CGDC. Do you think that would work over here?
PM: I don't think it would work because we wouldn't be big enough. With CGDC, one of the amazing things about it is that's it's incredibly well run, I mean really impressively well run. And I'm on the board of it this year, and it's just scary. It's all very good, using a typical American approach to things, the things they say that Americans are very good at. But I'm not actually convinced that anyone shares any ideas at all at CGDC. I'm not entirely sure, but they probably come away feeling that they did. They come away feeling this warm glorious thing. And they haven't actually been communicating to each other. It's a very big job. 





Pipe dreams

A gaming revolution is headed this way, but it will be driven not only by new slabs of console technology from Sony *et al* but by the information being fed into and out of these boxes via comms technology. With ADSL poised to deliver the Internet as it was meant to be, Edge considers the ramifications it could have to the gaming world

Since **Edge** first looked at ADSL back in **E**74, the introduction of this eminently desirable technology is no longer 'the worst-kept secret in the industry'. With trials running in the Surrey area, and pressure from telecommunications watchdog Oftel, BT has bowed to the inevitable. ADSL (Asynchronous Digital Subscriber Line) will begin to appear in homes across the UK over the next six months as exchange centres are upgraded to support the service. With conservative forecasts of 2Mb/s download speeds, ADSL is less of a 'step up' from standard 56K modems and more of a quantum leap.

Ultra-fast browsing, Net-based TV, video teleconferencing... its potential appears limitless. But the aspect of ADSL's introduction that will interest **Edge** readers most is obvious – multiplayer gaming. So **Edge** went off in search of the opinions of key industry figures on the implications of the new technology.

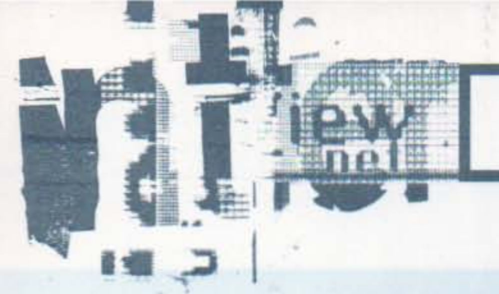
Jason Kingsley, MD of Rebellion

Rebellion's **Jason Kingsley** is certainly *au fait* with the trials and tribulations involved in creating online play options. The recent *Aliens Vs Predator* has a progressive multiplayer aspect and that would certainly benefit from the introduction of ADSL. But what do the likes of Kingsley intend to do with the extra bandwidth? Do they envisage consolidation: faster, more attractive traditional deathmatches? Or, perhaps – whisper it – a degree of innovation?

"The problem at the moment with the pipeline," says Kingsley, "is that our ideas outstrip its capabilities. With ADSL, we can go a couple of notches further. For example, you could update a game environment and everybody who has a registered version could get changes on a weekly basis. You might be able to send 'em different-coloured aliens, or put a slightly different twist on the AI routines so the game plays differently."

The opportunity to patch and enhance games via ADSL allows for more significant alterations. Certain developers within the industry are discussing the creation of teams for the sole purpose of writing such add-ons. Does this interest Rebellion?

"The problem," offers Kingsley, "is who's going to pay for it? In the traditional development process you develop the game, you put it through testing, gold



copies go out for review, and then it reaches the shops. Afterwards, you might have to do the odd patch or two, but that's it. If we found a small team of five people to support a game after release, who's paying for that? Does it come out of the money you've made from development, or does the publisher retain you and pay however many grand per month?"

At what point do developers and publishers consider charging for add-ons and upgrades for their titles? Between large-scale extra-level sets sold through retail outlets (like those for *Quake II* and *Age of Empires*) and a simple tweak-'n'-fix patch lies the grey area where the likes of Valve's *Team Fortress* reside. For Valve, the worth of *Team Fortress Classic* as a means of enhancing the reputation of both its company and its products – *Half Life* and, arguably, the forthcoming *Team Fortress 2* – is virtually priceless. But could a nominal fee requested from a large owner-base allow more developers to attempt such ambitious post-release enhancements?

"You might," suggests Kingsley, "have your publishers say: 'The retail version is out there. If you want to support it, you're gonna have to pay for it, but we'll let you charge £2.50 for a patch.' We could then put it on our Website. For games that we ourselves own – *AVP* obviously belongs to Fox – the idea of doing patches and changes, and maybe special editions, is great. What about covering the landscape with snow and changing the textures so that people can download the Christmas special? Or something else that is suitably seasonal?

"You can create more of an ongoing customer support base by offering updates and ADSL gives us an opportunity to do that directly rather than having to put more boxes in retail stores. Later you could put all of those add-ons and enhancements together in a box and sell it as a special edition to the as-yet unconverted.

"And ADSL would obviously help a great deal when we are uploading. With *AVP*, we'd sit there for hours to send stuff on our current connections."

ADSL will, almost certainly, lead to a revolution in game development. Can gamers expect similar advances for the code that actually orchestrates online play? Will programmers attempt to make their routines as tight as possible, using the least possible bandwidth for the best speed? Or will they become lazy, their code messily guzzling bandwidth that it doesn't really need?

"Good teams will always push their code," Kingsley opines. "I think it's a pride in your craft. I'd kind of draw comparisons with tennis. One of the guys here at Rebellion is a good tennis player. He says that in the 'old days', when they had wooden racquets, the difference between a good player and a bad player was huge – a good player would have to hit the ball in the right part of the racket and so on. Now they've got super-high-tech racquets which are more forgiving. The difference between a good player and a bad player has narrowed, and so it's become a power game.

"It's the same with systems, hardware and communications. As they become more powerful, there's more room for people who are less sophisticated and less accomplished, so the difference between the very good and the average will get narrower. When I first started in the industry, the concept of using someone else's engine to make your game would have been a complete no-no. Now people regularly use other people's technology and produce very good games on top of it. From the 'purist's' perspective, they shouldn't be doing that. But why not?"

Will a combination of ADSL's speed and the proliferation of off-the-peg engines help create a thriving indie-games scene, as with cinema, music and, to a lesser extent, literature?

"With ADSL, you have a great way of doing your *own* stuff and getting it into people's homes. There's always a way for 'smaller' people to be successful. There will always be mavericks who are prepared to sit on their own for two years to produce something innovative. Whether it will ever get to the scale and quality of commercial releases is another thing entirely."



ADSL will allow team-based FPS titles to be far more ambitious. An *Aliens Vs Predator* sequel will, no doubt, demonstrate that

"If you see the Web working over ADSL, you see it is how the Web was meant to be. It certainly makes gameplaying more immediate, but it will put more stress on the back-end of the infrastructure"

Richard Warrion, director of online services for Gameplay.com

Richard Warrion of Gameplay.com – home of erstwhile BT online gaming service Wireplay – is another individual with a keen eye firmly focused on ADSL. Does he feel that its introduction will mark online gaming's growth into a mainstream interest?

"I think it's a very good opportunity," he says. "If you've seen the Web working over ADSL, you see it is how the Web is meant to be. It certainly makes gameplaying more immediate. It will put more stress on the back-end infrastructure, because you are passing a lot more data around, but at the same time I'm pretty confident that the infrastructure will evolve and develop to support it. I'm not saying it will be completely without problems – things never are – but I am pretty confident that it will evolve and I think it will open up a lot more opportunities for gaming both in terms of online play and distribution."

Among certain hardcore gamers, there appears to be a (largely unspoken) belief that, over the next few years, it might be possible to live on the proceeds of online gaming tournaments. That dream might *just* be plausible – albeit with barely legit DHSS support as a safety net. As ADSL opens up online gaming to more people, more genres and, thus, greater marketing spend, can we expect an exponential rise in sponsorship and cash prizes for winners?

"In terms of tournaments and things like that, I think it's going to happen anyway," offers Warrion. "We've already started to see it happening with what we've done through Wireplay. It's nothing big at the moment, but I suspect that will come as the whole thing matures. I don't think that ADSL will necessarily be the thing that drives it – what counts is the quality of the game, it being released at the right time, and that it's the right game for tournaments. What we need is the quality of content and accessibility in other genres, to attract other players as well as firstperson shooting fans."

And what of online retailing? Surely Wireplay must relish the possibility of selling the games that people play on its service?

"Well, we already distribute some games online. And if you've got the opportunity to download more complex games via ADSL then I think that's going to be beneficial, both from our point of view as an online provider and also from the point of view of developers because it reduces their distribution costs."

So he imagines certain developers might create online-only multiplayer games, distributed by online gaming services?

"Yes, I would expect that sort of model to be developing soon."

How far does Warrion believe ADSL will go? Is this the online medium of the next decade?

"As things stand at the moment," he explains, "there's a trade-off between distance and bandwidth. As I understand it, the technology that BT has been using in the ADSL pilot has a capability of up to around 6Mb, but you would have to be on a relatively short local line to get that kind of performance. Basically, there's a distance/bandwidth trade-off curve, and it's reckoned that 2Mb will be the average. As with all



Box #1

Back Forward Reload Home Search Netscape Images Print Security Stop

Location: GENRE-LY SPEAKING/an examination of gamestyles set to flourish with ADSL's greater bandwidth

What's Related

MULTIPLAYER FOOTBALL GAMES The worldwide appeal of football is beyond measure. From management sims to arcade-style kickabouts, their chart success is an enduring testament to their online potential. At present, modem speeds are just too slow to do the games justice. ADSL, however, should allow this genre to flourish – even dominate – in the online environment. Huge leagues are a possibility, and even World Cup tournaments with qualifiers and finals to coincide with the real-life event. There's even the possibility for a football title that allows gamers to control individual players, and to form their own teams, with substitutes. It won't appeal to all, but it's a concept that could see fans gladly hand over credit card numbers, intoxicated by such far-reaching potential.

THE COMBAT GAMES OF THE FUTURE *Quake III: Arena*, *Unreal Tournament* and *Team Fortress* merely allude to the potential of this fashionable genre. The ideal ADSL-speed realisation of the FPS dream would be a team-based title that could use the additional bandwidth to allow larger, more intricately detailed locales. From the fantasy settings of *Quake* to increasingly 'realistic' environs – a 'Saving Private Ryan'-style scenario, perhaps, or a skyscraper *à la* 'Die Hard' – every game could be enhanced by authentic details and the destruction of scenery in real time.

In the world of RTS, though, the increasingly keyboard-intensive move lists of most examples need to be addressed if the gamestyle is to retain and increase its current popularity.

THE ONLINE RPG *Ultima Online* and, to a lesser extent, 3DO's *Meridian 59* have proved that online RPGs can be enormously profitable with a modest retail performance. Their secret? The subscription-based payment model, whereby players spend a seemingly nominal sum – £10, for example – in return for another month of access to game servers. Even when updates and patches are taken into consideration, staffing costs can be far outweighed by even the smallest of worldwide userbases. One hundred thousand users equates to £1m per month; the online RPG, therefore, will one day equate to cash cow in the eye of every forward-thinking publisher. The obstacle they face is making this often prohibitively involved genre accessible to a wider market. *Ultima Online* virtually *demands* that players invest hundreds of hours before they are anything less than ludicrously underpowered – something even hardcore gamers will baulk at.

THE RACING GAME Sega's *Daytona USA* achieved it with aplomb in the environment of the arcade. Punters loved it, developers and pundits admire it. The average 56K modem, however, is patently not up to the task of transmitting positional data for a field of 20 cars. Indeed, most modems would struggle as a conduit for a 30fps game of fourplayer *Super Sprint*. ADSL's 2Mb pipeline to – in an ideal world – similarly specced hardware could allow post-Millennial *Gran Turismos* and *F1GPs* to support a full field of racers. Better online racing games are beginning to appear for the PC, but most titles still, understandably, opt for eye candy over well-considered network functionality. And there are the huge disparities in hardware and software ownership to consider, too. The ball is actually in Sega's court. A *Daytona* could see *en masse* acceptance of the Dreamcast's online gaming nous – and if Yu Suzuki were to be involved in this hypothetical project, even Sony would take notice...

THE ONLINE STORE As multinationals and sole traders alike continue to dip their toes into the oft-turgid waters of the Internet, the earning potential and general viability of online stores is a subject under scrutiny on a by-minute basis. At the moment, picture-heavy pages with the odd hint of *Shockwave* for, well, *flash*, is about as good as it gets. However, the prospect of realtime 3D 'virtual stores' that customers can browse through via PC or console is a concept that many larger businesses are warming to. It could, in essence, be achieved today. Sainsbury's, for example, could give away free CDs containing reasonable 3D engine code. It might, for the sake of argument, use a simplified FPS control method to allow users to negotiate digitised shelf space. Want to see a product in closer detail? Just click on the tin of tuna or bottle of Bollinger in question for a photo or tantalising recipe suggestion. With virtual trolley filled to the brim, customers could dial into a secure network, place their order, and await delivery or a collection date. The only limit, really, would be the imagination and enterprise of the developer and retailer in question.

technology, I expect that ADSL will improve with time. The capabilities will increase, but there will come a point where you will reach the limits of the copper wire that has been sitting in the ground for many tens of years. At that point you'll have to move to fibre, but in the meantime ADSL has got good potential."

Will ADSL lead to a revolution in how online play sites are presented? Should, for example, players expect to be able to view streaming video of a game in progress before deciding to join?

"That's possible now," says Warrion. "You can join the game as a spectator. But yeah, there are lots of things you can do with video."

"The capabilities of ADSL will increase, but there will come a point where you will reach the limits of the copper wire that has been sitting in the ground for many tens of years"

Peter Molyneux, Lionhead Studios

Peter Molyneux obviously requires scant introduction. Assailed with ideas on what appears a minute-to-minute basis – as one close confidant claimed to **Edge**, "the way Peter's brain is wired, you can almost hear the fuses blowing" – there's little doubt that he is excited by the potential of ADSL.

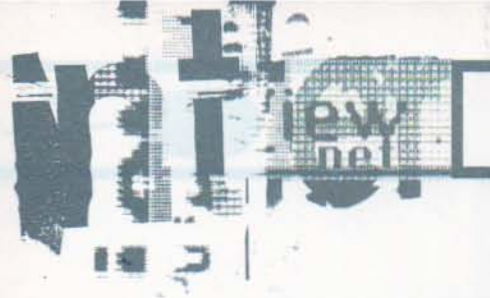
"For me, it is good news," says Molyneux. "Computers are getting so powerful now, it's a shame that the speed of communication hasn't caught up. But ADSL offers a huge improvement. It means that I can start getting as ambitious with the online stuff as I have been with the singleplayer stuff. But the way I want to use it is to give the ability for you to upload very personal things to yourself, to the Web and then for everybody to download them. Without giving anything away, this means that people can then see you uniquely.

"Imagine if I went into a chatroom or into an arena or something. The trouble is that my character looks like a character someone over in the States drew for me. I don't really want that. I want some uniqueness about me. I want people to say: 'Oh, look! Here comes Peter.' And that's what this extra speed allows us to do. It allows people to be individual and that's a really exciting thing. It's something that has never been possible before, because once you talk about individual graphics and individual information, it means that everyone in the world has to download it before they can communicate with you. And obviously that slows things down. ADSL, though, is much faster.

"That's the real problem with the Internet as it stands. It's awful! Journalists are the ones we should blame. When the Internet started to emerge, everyone read all these exciting articles about how we will be able to chat to each other. All that's what I call 'blue-skying', where you thought, 'Wow! This is going to be fantastic!' But we're all disappointed, we're all moaning that it's too slow and there's not enough personal information there. But what happens is that slowly technology catches up with the dreams that have created. I think this is what ADSL is doing. This is where the Internet starts to become the Internet."

As ADSL is always 'on', does Molyneux imagine games being tweaked 'in progress', downloading routines to enhance gameplay in a seamless way? Naturally, the answer is 'yes'. He's already there.

"I must admit, we're still wondering if this going to be possible in Europe and the UK, but I'll give you an example of one of the things we're doing. In *Black and White*, we have a complete weather simulation as part of the game. We felt that we wanted to simulate weather with accurate formations of cloud, and weather systems moving in.



So, what happens when you log in to the game – if you've got an Internet connection that's fast enough – is it will go to the appropriate site and find out the weather in your town. Then, the weather you see when you are playing *Black and White* will be the weather outside your window.

"More excitingly, though," he continues, "in *Black and White*, you have this creature. You have to give it a personality. Now, I've always thought that when I'm playing a game, I want to listen to the music that *I* want to listen to and I'll often put a CD in my drive. When people do this while playing *Black and White*, they'll see their character will start to dance to the rhythm of the music they're playing. Unbeknown to the player, we've gone to a special Web site which has given details about the music you're playing in your drive. It's got every CD that has ever been released, and we've worked out from that what the beat is, whether it's dance, techno, jazz, classical, etc.

"These are the sort of exciting personal things that you can do with faster connections, and you can do it while the game is going on. That's much more exciting than watching some 'wait' bar pop up for an age.

"There's another idea we have, too. This doesn't sound very exciting, but when you think about the implications it *is*. You can join any multiplayer game of *Black and White* at any time, right? What it does, though, is send you down snapshots of what has happened in the game before your arrival. Normally you haven't got a clue about what's happening – about who's been good, who's been bad etc. And now we can send that information down the lines and you get a much better flavour of a game that you're joining."

So how is Lionhead managing to implement such features with what is, by current standards at least, a relatively small team?

"Well, a lot of the special features are being done by people from the demo community," reveals Molyneux. "They're this group of kids, normally between 15 and 20, who are incredibly talented. They go to these parties and create these cool demos. We have just found this brilliant Internet guy over in Germany. I said to him: 'George, this is what *Black and White* can do. Think of some cool stuff.' And we ended up with some of the most amazing server technology. There are so many exciting things to discover. There is so much unfulfilled potential on the Net. People aren't thinking big enough. And, sometimes, they're just not thinking."



***Black and White* will arrive before ADSL does. It remains to be seen how many of Molyneux's ideas work with a 56K modem**

"Unbeknown to the player, we've gone to a Web site which has been given details about the music you're playing in your drive. It's got every CD ever released, and we've worked out from that what the beat of your music is"

Will it take designers of the calibre of those who have been working at Nintendo, Sega and – although still proving itself in terms of game creation – Sony to popularise and refine the online gaming experience?

"I think there's a good reason for why the console people are putting their feet tentatively in this particular pool," says Molyneux. "I don't think it's anyone's fault, but most of the Internet products we deal with are atrociously designed. What about people who have never seen the Net? What chance do they have? Even Web browsers are incredibly techy for people who are not Web literate. Imagine what it would be like to be presented with the Internet first time – IP addresses, html and POP3 servers. Who is going to want to even be bothered with all that? We need to make the Internet more like using your TV, and until we do that it'll just be an unexploited part of most people's console. If I were an Internet newcomer, I would want to go home and put my console on and play against somebody without having to go through Web browsers and chatrooms. Once we get that sort of thing, the online gaming explosion will happen."

Molyneux is obviously very keen to see the Internet and multiplayer gaming 'personalised'. Surprisingly, though, he's not entirely convinced that voice- and vision-based communication is entirely a good thing.

"The problem is when they don't want their own persona to be up there – they want to be represented by something they have created, instead. We should exploit that and allow people to be who they imagine themselves to be, rather than forcing them to be the people they really are. Web cams are so cheap now. And there is no reason why we can't, with the extra speed, offer player-to-player video calls. It's very exciting – but we shouldn't 'force' it upon people who would rather be someone else while they are online."

Ciaran Brennan, director at Bastion

Ciaran Brennan – a name industry-based readers will doubtlessly recognise – is one of BT's ADSL trialists. **Edge** has spoken to a number of people in both the UK and US who have used ADSL for online gaming. Mindful that paragraphs of envy-inspiring superlatives would not make interesting reading, **Edge** opts to discuss ADSL in more general terms with Brennan.

Has he been surprised by ADSL's speed?

"I have been impressed, but not surprised," he replies. "Essentially it's just an incredibly fast connection to the Internet. It's easy to install. They [BT] come in, they screw a couple of little boxes to your wall, but effectively it's just like your standard telephone line. You can still make telephone calls while you're on the Internet, and it flies along."

Does the subscription payment system alter his Internet habits?

"It makes a great deal of difference psychologically. Call me old-fashioned if you like, but whenever I was online using an old modem, I was always aware that it was costing me money and I'd always go for the plain site option. Now when faced with the choice of a Flash, frames or a plain site, I always go for the one with all the bells and whistles. Best of all is when you make big downloads – it's a dream."

Such service will, naturally, come at a premium.

"I pay £30 a month," reveals Brennan, "but that's only as a trialist. I don't know how much it will be when it's actually released."

But worth it for heavy users, surely?

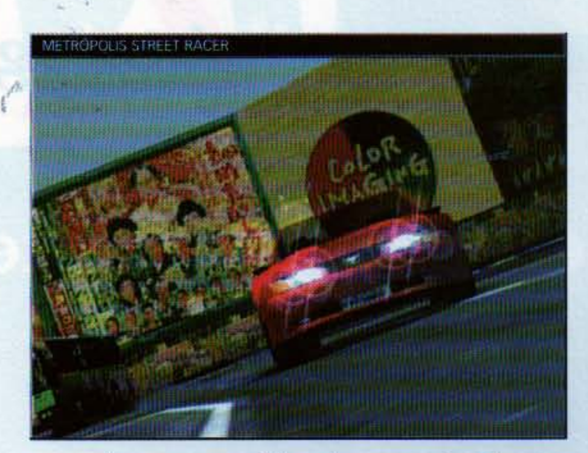
"It's the way the Internet *should* be," he says. "ADSL has made a massive difference to the way I use the Internet. We have an ISDN line in the office, and it used to be that if I had something serious to do on the Internet, I'd do it at the office. And now it's the other way around. Even if it's something work-related, I'd rather leave it until I get home. It's noticeably faster than the ISDN line in the office."

As an industry professional, does Brennan find the idea of videoconferencing via ADSL attractive?

"Within a year or so – when you know that the people you are currently sending emails to have the same ADSL technology – you know that there's a possibility that they will be online and you might think yeah, I can talk to them face to face."

Could ADSL's introduction lead to a significant drop in email usage, then? "I don't think so," opines Brennan. "Email is a beautiful means of communication. People can do and say things that they couldn't face to face. You can be angry on email in a way that you just couldn't be with direct eye contact. And, of course, people might be too ugly. With email, no one knows you're a dog."





***Metropolis Street Racer* could be a showcase for the DC's online gaming potential. It is unlikely to offer such functionality, though**

Martyn Chudley, marketing executive at Bizarre Creations

Martyn Chudley, Bizarre Creations supremo and *Metropolis Street Racer* designer, believes that the arrival of ADSL will begin to diminish the importance of the singleplayer game.

"ADSL is bound to increase the level of online gaming. At the moment online gaming is still a niche market – FPS titles and strategy games are the main products available. The lack of latency [with ADSL] will now mean than almost any genre of game will be possible. Eventually development of online titles will become the norm, with singleplayer games probably taking second place."

Edge readers, obviously, know that ADSL will help combat latency. But what of new features and innovations?

"Hmmm," muses Chudley. "Perhaps you could download not just levels, but entire game .exes. Or 'rent' a Formula One game and then download the circuit just prior to the actual event. In the close season players would perhaps only be able to use test circuits. Or perhaps a soccer game could download the actual team members taking part in a particular match, and the gamer could have all of the literally up-to-the-minute stats throughout the season."

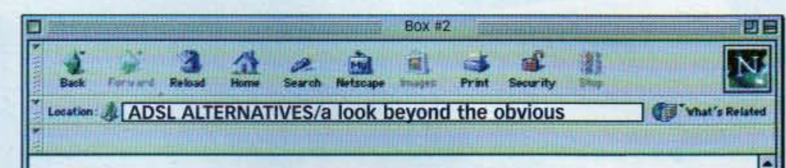
Will auto-patching (and even auto-enhancing) games become the norm, then? And should they?

"Auto patching to fix bugs is dangerous," warns Chudley. "Companies will get into the habit of releasing 90-95% complete games to meet deadlines, only to patch later. Auto-enhancing would be cool – downloading latest cars, weaponry or special moves on demand. This could also lead to unscrupulous companies forcing players to pay extra for better weapons or skills, just to stay ahead. Not a pleasant thought."

With console manufacturers having dabbled with Internet functionality for years, can we expect a design revolution to accompany their whole-hearted arrival? Might ADSL's potential not actually be fully put to the test until Japan's finest begin developing for it? Do we need Nintendo, Sega and Sony to push the boundaries of game design, as they have done so before?

"I think the console firms will definitely push online game design into new areas," says Chudley. "Console products are radically different from PC ones. I think we will get this same division in the future of online gaming, with far 'wackier' games being created as the 'niche' markets develop and expand.

"ADSL (and online) is definitely the way forward for the games industry as a whole," preaches Chudley. "There will be seen to be a maturing of games, because more and more genres of games will allow the player to compete with other humans, and thus gaming will become more mainstream. This will also interestingly lead to an increase in the amount of time spent developing AI, because games will be created as primarily multiplayer titles, and AI routines will have to fill the holes left where human opponents are not available."



While currently appearing the best means of connecting to the Internet, ADSL is not without its competitors. **Edge** takes a look at alternative comms technologies that will be vying for your online commitment:

SATELLITE DOWNLOAD
Speed: Around 200Kb/sec
Cost: Circa £500+ per annum; £250 for initial equipment
It's no great leap of thought to imagine that satellites, unencumbered by the physical limitations of landlines, could offer high-speed Internet access. Lamentably, we aren't yet at a stage where the humble home PC can speak to orbiting technology without a little assistance. Your requests for pages, then, are made via an ISP that supports the service. Easynet is one such company, although it charges a £50-per-month premium for the privilege of receiving 200Kb/s+ downloads.

CABLE
Speed: Conservative estimates at around 200K/sec. Higher is possible.
Cost: TBC – but probably affordable.
While still demanding the use of a phone line to send information, cable-based access offers IDSN-beating download speeds. For those in areas with the requisite wires, it could offer an affordable, effective 'lite' alternative to ADSL. You're out of luck if the cable companies haven't got around to hooking up your town, though. Communication giant NTL is thought to be planning cable Internet access by the end of the year.

DIGITAL POWERLINE
Speed: Estimated at around 1Mb/sec. More possible.
Cost: A fixed-rate charge, yet to be confirmed. Sounds like an April 1 gag for the gullible Internet junkie, but it's absolutely true – Web access via a plug socket is set to reach certain areas of England by the end of the year. Fully bi-directional, and with a simple installation involving a box added to your electricity meter, Digital PowerLine – as it is so called – could prove an attractive alternative to ADSL. Developed by Nortel in conjunction with electricity giant Norweb, DPL could be markedly cheaper, too. One to watch.

MOBILE CONNECTION
Speed: 64Kb/sec. More possible.
Cost: Bloody prohibitive
To all but those lucky enough to let their company pick up the tab, Internet access via mobile phones remains an attractive, though hellishly pricey proposition. Ideal for those on the move, current bandwidth allocations allow ISDN-like speeds. That isn't too hot, but cellphone networks do have extra bandwidth to offer. They'll have to cut costs to make this alternative attractive, though.

IDSN
Speed: 64K/sec/128K/sec with dual channels.
Cost: Around £450-£500 for domestic version, with £15 call allowance per month. Its day has come and gone. It's damn expensive, too, for what it offers – being metered, calls above the £15 allowance could make it very expensive indeed.

"Perhaps you could 'rent' a Formula One game and then download the circuit just prior to the actual event. In the close season players would perhaps only be able to use test circuits"

The future of comms in gaming?

Even among hardened industry professionals, the excited anticipation surrounding ADSL's arrival is tangible. And these are the individuals who, invariably blessed with decent LANs, can play deathmatches as the developers of individual games intended. As gamers, they don't really need the extra speed, but still they hanker after it. As creatives, they practically salivate at the prospect. The sheer number of ideas and concepts in discussion is reason for any gamer to be cheerful. The next few years could, genuinely, see gaming transform into a truly sociable activity. Over the next decade, it may change beyond all recognition.

Of course, not everyone is convinced that ADSL will change people's gaming and browsing habits *that* much. "Porn," said one female devco employee who shall, to spare the blushes of her male colleagues, remain nameless. "They'll just spend less time downloading more porn. You *do* know that, don't you?"

Hmmm. Come the revolution, indeed.

TESTSCREEN

JET FORCE GEMINI

The definitive monthly assessment of the world's latest videogames

Control freakiness

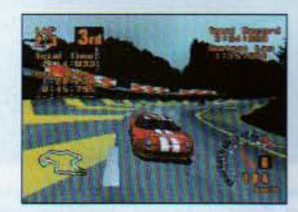
The dawn of the Nintendo 64 brought with it the finest graphics ever seen on a console system. More tangibly, though, it introduced a new way of interacting with graphics, thanks to the labours of Nintendo's legendarily innovative hardware designers, who fashioned a controller that was both alien and yet immediately accessible.

When Sony introduced its Dual Analogue PlayStation joypad, cynics took one look and declared it a lazy, copycat device, the product of a company running out of ideas. But then Sony began to throw its weight behind the accessory, urging developers to offer support wherever possible, and eventually revising the unit to offer rumble support (another feature cribbed from Nintendo). And, with the arrival of *Gran Turismo*, it became clear that PlayStation game developers were capable of doing what Nintendo had: creating experiences where variable input, rather than digital, became fundamental to getting the most out of the nuance-laden titles of the late-'90s.

Titles such as *Colin McRae* and the *TOCA* series followed, setting an agenda that looked infallible. Until recently, that is. This month sees *Wipeout 3*, *Tony Hawk's Skateboarding* and *Cool Boarders Burrrn* arriving in the **Edge** office, all titles offering analogue control as their 'preferred' mode. In practice, however, none of these titles work best in this fashion. Put simply, using analogue diminishes the gameplay experience rather than enhancing it. It's all down to response: using the digital D-pad gives a more immediate reaction on-screen. And in games like *Wipeout 3*, in which steering your craft is a task in itself from the word go, *Tony Hawk's*, where rapidly executed aerial manoeuvres are the key to real success, and *Cool Boarders Burrrn*, where swiftly slicing back across the ice in the face of approaching obstacles is crucial, anything less than immediate response is simply not enough.

Is it true that some games simply aren't suited to the variability of analogue sticks? Well, it's certainly true that *some* games must be played the good old-fashioned way. But you could not say that *WaveRace* and *1080°* – two games that, on paper, are more ambitious than *Wipeout*, *Hawk's* and *Burrrn* – would play more satisfyingly via D-pad than analogue stick. It would therefore appear to be more a case of software than hardware being at fault.

Sony might be well advised to ensure that the impending wave of PlayStation2 software – manufactured to be compatible with a joypad featuring analogue buttons as well as analogue sticks – does not use such functions purely for the sheer hell of it.







From left: *Gran Turismo*, *Colin McCrae Rally* and *WaveRace* – three games that make excellent use of analogue control. Why is it that so many other titles fail in their efforts to offer similar response?

Every issue, **Edge** evaluates the best, most interesting, hyped, innovative or promising games on a scale of ten, where five naturally represents the middle value. A game receiving a 'seven out of ten', for example, is a very competent title with noticeable flaws but which should still appeal to a considerable range of players. It does, after all, score two points above average and should therefore not be considered average.

Edge's rating system is fair, progressive and balanced. An average game deserves an average mark – not, as many believe, seven out of ten.

Videogames on the **Edge**

The month's other digital delights in brief



Soul Calibur (DC) Namco
It's been in the office for nearly two months now, and some secrets still remain undiscovered. That rarest of beasts: a beat 'em up with real depth.



F355 Challenge (Coin-op) Sega
The Japanese unveiling of a linked version of *F355* sent **Edge** traipsing back to the arcade to polish up its skills on the glorious three-monitor original.



Super Metroid (SNES) Nintendo
A game-room clearout unearthed this classic from the SNES's heyday. Can a 64bit update really be anywhere near as good? The smart money says no.



1080° Snowboarding (N64) Nintendo
This month's deliberation over the merits of analogue control (above) brought one the best exponents out of the cupboard. Snowy bliss.

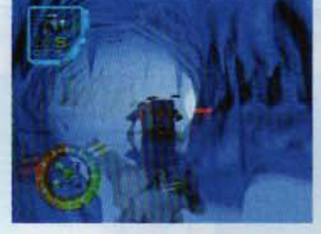
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JET FORCE GEMINI





Some of the larger characters kick up quite a storm. Technically, there is little to touch this game on the N64









It would appear that Rare has followed Nintendo's lead with *Zelda*, as *Jet Force Gemini* is packed to bursting with fine cinematic sequences such as this (above)

The game takes some getting into, but once you're in, you're in. Perhaps Rare's biggest achievement here lies in the fact that it has successfully created something *original*, flying in the face of criticism levelled at *Banjo-Kazooie*

With nothing significant from Nintendo itself forthcoming this Christmas – aside from the highly enjoyable *Smash Brothers* – it falls to Rare to prove that the N64 is still very much alive and kicking. And of the three big games the developer has scheduled for launch in the coming months, it is *Jet Force Gemini* that has the most to prove.

Donkey Kong 64 sports one of Nintendo's best-loved mascots, and Rare has proved it can produce sterling 3D platform action thanks to last year's *Banjo-Kazooie*. *Perfect Dark*, meanwhile, is the spiritual successor to *GoldenEye*. But *Jet Force Gemini* has none of these helpful foot-ups to fame and fortune. What it does have, though, is the ability to deliver videogaming at its most assured and exciting.

The game is a straightforward blaster at heart, with progress ensured by finding keys and eliminating a given number of enemies within a certain area. But the layers of embellishment heaped upon this simple concept truly make *Jet Force Gemini* shine.

Initially taking control of male character Juno, moving through the game unlocks Vela and Juno, the two other (female and canine) members of the *Jet Force* team. Each character has its own route through the game and sports one special ability which allows the player – once all the characters have gathered midway through the game for a pre-emptive strike against Mizar, the principal villain – to take, say, Vela back through Juno's path, accessing secret areas and completing more of the game (a peculiarly Nintendo-esque tactic most recently appropriated by Acclaim in *Shadowman*).

The emphasis on carnage is exemplified by the hordes of enemies the player encounters. Swarms of remarkably cunning ground troops use cover, numbers and sniping while airborne forces strafe from above. An entertaining and inventive arsenal helps considerably, ranging from a brutal machinegun to triple-rocket launchers, homing missiles and a wonderfully realised sniper pistol.

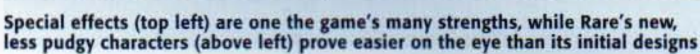
Complementing the non-stop mayhem is a vague smattering of







Format: **N64**	
Publisher: **Rare**	
Developer: **In-house**	
Price: **£50**	
Release: **October 29**	



Special effects (top left) are one the game's many strengths, while Rare's new, less pudgy characters (above left) prove easier on the eye than its initial designs

RPG-style NPC interaction, a wealth of excellent sub-games (including a masterfully realised *Wipeout* clone), and a host of intriguing extras. For example: jet pack-equipped exo-armour for Juno and Vela; a tank/boat vehicle for Lupus; plus the masterstroke of mini-games, extra characters, equipment and levels becoming available for multiplayer once they've been unlocked in the singleplayer game. And there's Floyd the Droid, a hovering sidekick that can be used by a second player for co-operative gaming.

Despite these riches, however, the game is initially confusing because of its control system. Practice reaps great rewards and it eventually becomes fluid and intuitive, but the dual-style system is unwieldy for the novice. The analogue stick moves the characters, with left and right C providing strafing. Tap R, however, and, in a manner reminiscent of *GoldenEye*, a crosshair is brought up. Aiming is then handled via the analogue stick, and movement controlled by the C buttons in a manner reminiscent of *Turok*. The weapon inventory is always scrolled through via A and B and, splendidly, four of the player's favourite weapons can be assigned to the D-Pad for quick access.



***Jet Force Gemini* may not appear the deepest title at the outset, but extended play reveals innumerable secrets and bonus sub-games**

The game is a **straightforward blaster at heart,** but the layers of **embellishment heaped upon this simple concept** truly make ***Jet Force* shine**



Juno the dog is one of the three variably specced characters

The camera is the least successful element of the game, stubbornly refusing to move and only effective when R is depressed and the aiming mode is activated, which centres the camera behind the protagonist. Yet this disappointing shortfall is more than made up for with the rich imagination, invention, structure and explicit understanding of how to keep the player rivetted to the show elsewhere.

Technically, the game is a marvel. Graphics are outstanding all round, with a consistently smooth frame rate, while audio accompaniment is equally impressive, lending *Jet Force Gemini* a stunning cinematic quality.

The N64 may be beginning to show its age, but Rare's title serves to affirm that the platform remains home to some of the best games being created today.

Edge rating:

Nine out of ten

FINAL FANTASY VIII





The GF animations are typically over the top. *FFVII* fans impressed with its 'Knights of the Round' animation have, literally, seen nothing yet



SquareSoft's ability to meld prerendered and realtime graphics is astonishing when put to work in scenes such as this, where interactivity works with streaming data

In open defiance of the law of diminishing returns, *Final Fantasy VIII* proves itself to be a worthy successor to its well esteemed forebear. Although its script seems weaker, the more dynamic, dramatic approach means that it cannot easily be deemed 'better' than its precursor, only 'different'.

Much has been made of *FFVIII's* CG sequences – in particular, the slice of FMV where central protagonists Squall and Rinoa dance to a wonderful classical-styled score. The irony, perhaps, is that SquareSoft's opus contains other, significantly more impressive cut-scenes. From a close-up view of a huge battle – with each combatant individually rendered and animated – to a parade led by gyrating dancers, *FFVIII* represents the pinnacle of CG achievement within the videogames industry to date. It is, in a word, beautiful.

Significantly, though, Square regularly attempts to blur the boundaries between active and passive consumption by combining its polygonal characters with FMV backdrops. This does not merely heighten the player's sense of participation, it also allows for exciting, breathtaking sequences.

One, in particular, stands out. During a confrontation with an armoured flying assailant, Squall is thrown from a great height. Grabbing a trailing wire as he falls, he dislodges his opponent. While they both hang on for dear life, the player is given elementary block, kick and punch controls to use in a brief sub-game. Meanwhile, a battle between two huge craft and countless soldiers rages in the background. This is just one of many inspirational set-pieces.

FFVIII uses a revision of its forebear's engine, and there are many parallels between the two games. For example, conversational exchanges are handled in an identical manner, a 'World Map' allows travel between major locations, and the menu system is resoundingly similar. But this level of familiarity breeds not contempt, merely ease of use.

SquareSoft's engine works brilliantly as a medium for relating an interactive tale. Just as a listener is unaware of a radio but conscious of the channel in question, and a reader sees words rather than ink on paper, *FFVIII's* mechanics seem transparent within minutes of play.

The biggest change to *FFVIII* is in its totally overhauled combat system. Using it, players can use 'Guardian Forces' to join magic to character stats

SquareSoft's engine **works brilliantly** as a medium for **relating an interactive tale,** and *FFVIII*'s mechanics become **transparent within minutes** of play



The 'Draw' command is a novel idea, tempering the urge to attack



This CG-based explosion takes place as you frantically move your characters to the front of the screen. It is incredible



Format: **PlayStation**

Publisher: **SCEE**

Developer: **SquareSoft**

Price: **£40**

Release: **Out now**



FFVIII's **battle sequences are far more strategic than those of its predecessor. Choosing which GF abilities to use is a thought-provoking task. Similarly, light relief is presented in the form of slightly interactive attacks (right)**

and to learn new abilities. There are over a dozen of them in all – some hidden, some given as gifts for defeating a particular 'boss' character – and players must nurture these by specifying how they grow in power. Each possesses a 'special' attack that takes time to charge, but eventually unleashes a devastating, over-the-top assault. And it's also worth pointing out that these represent the best-choreographed examples of polygon animation you'll probably ever see on a PlayStation.

Another alteration is the 'Draw' system. Squall and his cohorts do not actually begin with a stock of spells. Instead, they must use the 'Draw' command on an enemy during battle to steal magic attacks. This presents the player with a quandary: should you go for a quick kill, reducing the risk of losing party members? Or should you attempt to grab as many spells as you can? Invariably, the ideal tactic lies somewhere between the two extremes. Those who found *FFVII's* battles arduous will find *FFVIII's* highly strategic skirmishes far more enjoyable, though. The sheer number of options and techniques available can be bewildering, but by the end of disc one – after around 15 hours of play – most gamers will both grasp and relish these intricacies.

Technically, *FFVIII* is a far more accomplished game than *FFVII*. A slight shift towards a more linear progression lends it a more immediate feel – there are far fewer instances where, the thread of the plot hanging loose, hours are wasted spent aimlessly wandering.

As a piece of narrative, however, it lacks a focal character with the sheer charisma and presence of *FFVII's* Sephiroth. Widely regarded as one of, if not *the*, best videogame character ever created, *FFVIII* misses the menace and mystery that he invoked. Similarly, *FFVIII's* many revelations and plot twists are sometimes badly scripted. Having not been suitably manipulated and prepared, it's hard not to greet such 'Luke, I am your father'-style moments with anything but indifference.

FFVIII's problem is ultimately a product of one of its foremost attributes – its sheer size. Hollywood epics invariably last for an hour and a half while some hardcore niche or arthouse flicks can stretch up to three, even four bloated hours. How, then, can a developer even hope to offer consistently strong dialogue and sub-plots over a 60-to-80-hour duration, as Square attempts here? Answers on a postcard, please.

Regardless, *FFVIII* is yet another outstanding edition of SquareSoft's far-from-final fantasies. Aesthetically astonishing, rarely less than compelling, and near peerless in scope and execution, fans of the series will embrace this emphatically. **Edge** has long pondered the validity of the videogame as art, and *FFVIII* is probably the strongest argument for the case to date.

Edge rating:

Nine out of ten



The design of *FFVIII's* vehicles and buildings is highly distinctive





At an early point, players are awarded with a set of Top Trumps-style cards. This game can be played against numerous NPCs

READY 2 RUMBLE BOXING







Compared to the graphical wonders of *Soul Calibur* (see E76), other titles pale into technical insignificance. However, Midway's game has a visual appeal entirely of its own, with colourful cartoon boxers and vibrant, over-the-top gameplay to catch the eye



Each bout begins with the camera floating down to meet the announcer's cry of, 'Ladies and gentlemen, boys and girls, let's get ready to rumble!' After a few games, it grates

With Midway having failed to produce anything that could even vaguely be classed as triple-A for longer than can be recalled, *Ready 2 Rumble* comes to the scene burdened with few expectations. That's not to say there isn't a modicum of hype surrounding the game – it's just that, for once, the talk is simply that: word of mouth.

At E3, countless pundits stumbled from Sega's stand bearing the same message: 'Go and play *Ready 2 Rumble*'. Now, five months down the line, the chance to properly sample Midway's sudden return to form has arrived. Essentially a beat 'em up, *R2R* is a cartoony, arcade-style boxing game in the *Super Punch Out!!* mould. (Indeed, while *R2R's* standard camera is side-on, it is also possible to play firstperson, evoking rosy memories of Nintendo's game.)

All this adds up in practice to a game that's both fun and funny, while also featuring gameplay precise enough to demand that serious attention be paid.

R2R offers twoplay options. The first is a basic Arcade mode, which rewards you with new fighters for completing 12 championship bouts. The overall solidity of Midway's production is noticable in details such as the crowd attendance and scale of venue, both increasing as you progress through to the final fight.

The second choice available is the Championship option, in which you control a stable of contenders rather than a single boxer. You can then opt to enter them into either Prize or Title fights – the former to gamble cash and the latter to advance them through the ranks – or to train each budding pugilist. This takes the form of several mini-games, mostly based around *PaRappa*-style rhythm-action events, like repeating button combinations at the right moment, making for a worthy diversion from the main fighting sections of *R2R*. It's fair to say that without the Championship mode, as a whole the game would be a far less attractive proposition.

Initially, *R2R's* cartoon visuals seem to distance it some way from the award of 'Most Realistic Boxing Game Ever', although it is perhaps the most enjoyable. However, looking beyond the graphics to the gameplay, it soon becomes clear that this is a remarkably technical title. Button bashers beware: such tactics will get you nowhere – here it's timing and careful manouvering that are the orders of the day.

Blows are controlled from the four

Button bashers beware: such tactics will get you nowhere – here it's **timing** and **careful manouvering** that are the **orders of the day**



Connecting a harsh blow like this is enough to make you wince in sympathy. However, such punishment must be dealt in order to advance the 'Rumble' bar



Format: **Dreamcast**	
Publisher: **Midway**	
Developer: **In-house**	
Price: **£40 (UK)**	
Release: **October**	



Battling through 12 rounds eventually leads to the title fight with the champ Nat Daddy – shown here having several teeth knocked out

main buttons on the Dreamcast pad, separated into left and right, high and low, with guard moves assigned to the shoulder triggers. While there are a few combos to learn, *R2R* is no 90-move-per-character behemoth like *Soul Calibur*. Fast reactions coupled with considered blows are the key to success – land enough hard knocks and the 'Rumble' mode is activated, giving you access to a brief period of hyperactivity and added strength.

Visually, *R2R* is nothing like *Calibur* either. In the wake of Namco's searing superstar (reviewed last month), the polygon potential of Dreamcast has to be reassessed, and Midway's game falls well short of the mark. Even the flares which surround the boxers' gloves in their powered-up 'Rumble' state are faked, which is disappointing. That said, there are a few neat touches such as the fat torsos of the heavier fighters wobbling and characters' faces bruising when they get hit. And all this is backed by a good, solid feel throughout the game.

With this and *Hydro Thunder*, it might seem that the arrival of Dreamcast marks the beginning of a renaissance for Midway. Recent disappointments from the company (including *Gauntlet Legends*) are soon forgotten amid the noise, colour and excitement that *R2R* delivers.

It's not the most complex or demanding of beat 'em ups, let alone games in general, but *R2R*'s classic 'arcade' feel is hard to ignore – or put down. Dreamcast's European delay will seem to drag ever longer knowing that *R2R* is just a little further from reach. But, of course, there's always the US import.



While in the 'Rumble' mode, it's best to batter opponents into submission, rather than standing around to have a screenshot taken – as shown here

Edge rating:

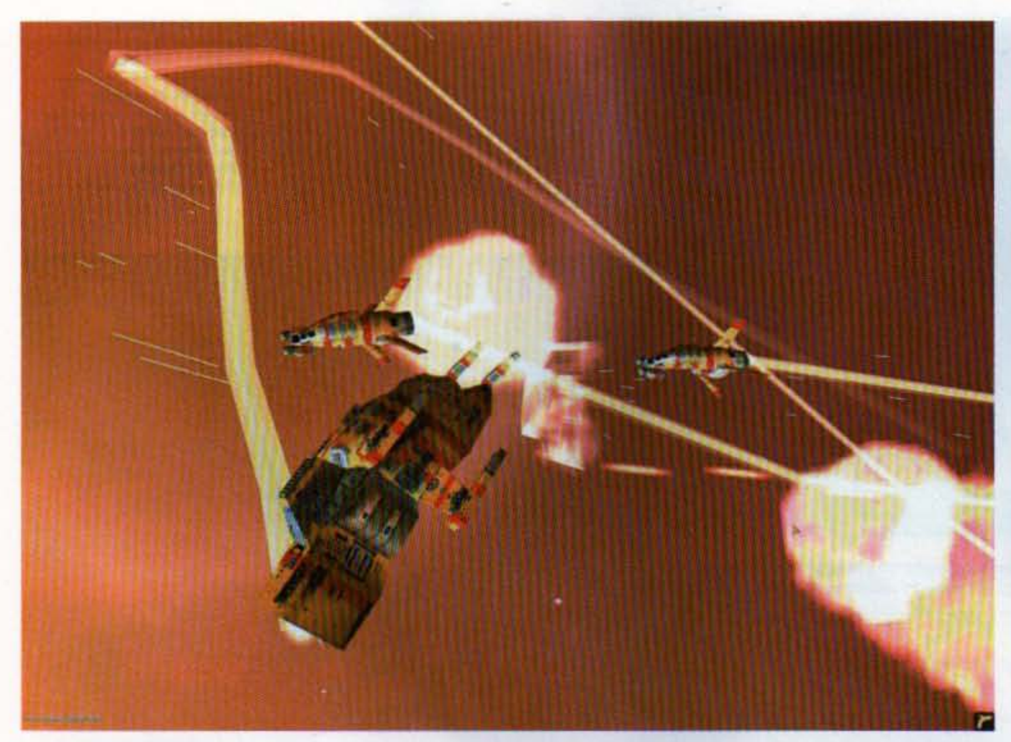
Eight out of ten





Pump iron, beat the bags, and generally improve your boxing virtual self with *Ready 2 Rumble*'s fine training system. Videogaming weaklings can opt for the boring 'Auto' mode

HOMEWORLD



Zooming in on ships allows you to hear their engines fire and articulated guns swivel. Zooming back out again you'll get the whole picture, with the ships you'd just been watching now pinpricks hanging silently in space





The graphics explode the old maxim that strategy games must look grim







Homeworld **is the first RTS game to make group formations work. Choosing the right tactic can increase your chances of survival**

Homeworld is a prime example of the PC's power to create gaming spectacle. In between the hardware exception errors, the grandiose sweep of ambitious titles like Relic's space-strategy epic create sights and situations which cannot be reproduced on any other domestic system. Player control and originality of content may be more contentious issues but the fact that, at times, *Homeworld* looks stupendous is not in dispute.

In an effort to escape the population pressures that plague traditional realtime strategy games, developer Relic has crossed gaming frontiers by setting its game in not only a true 3D environment, but also a space completely unfettered by any movement constraints whatsoever. Terrain, ground, strategic heights are nothing but petty provincial concerns as *Homeworld's* space navies charge around the galaxy on any vector they choose, appearing above, below, and even right next to the enemy if they take a shortcut through hyperspace.

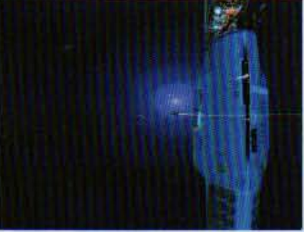
Such unprecedented freedom should present strategists, still unconvinced by the genre's switch from topdown to real 3D, with a logistical nightmare. But Relic's interface makes the transition from area to volume as smooth as it could conceivably be, short of rewiring the player's gyroscopic functions. And although manoeuvring an armada through 3D space is considerably harder than along a single plane, the extra effort is worth it to witness battles a world away from the flat *contretemps* on offer in *Tiberian Sun*.

Combat is nothing short of glorious as giant capital ships hang across a backdrop of swirling nebula and clumsily try to swat gnat-like fighters that cloud around them. The scenes are reminiscent of 'Battlestar Galactica' (with credible special effects) as searing laser bolts stab across space; hulls blister and then implode with gaseous, fiery force; interceptors are winged before spinning uncontrollably to their doom; and fighters make their passes over the surface of giant destroyers – twisting evasively through curtains of turret fire – before arcing back to make another attack run. Frankly, the major battles, between fleets of 50 ships per side, amount to some of the most awe-inspiring sights PC gaming has ever witnessed.

They're aided by Relic's wedding of the better elements of realtime strategy with a characteristic vision of space warfare. A simple system of harvesters sucking asteroids and space dust creates unobtrusive resource management, while a reasonably leafy technology tree allows for some variety in the type of cosmic navy the player will hurl into the void. Some may choose to invest in potent but ponderous heavy cruisers protected by smaller escorts while others may adopt a life-is-cheap approach by attacking with waves of kamikaze fighters and corvettes.

Regardless of a player's strategy, well-directed research can produce a counter-measure, imbuing the game





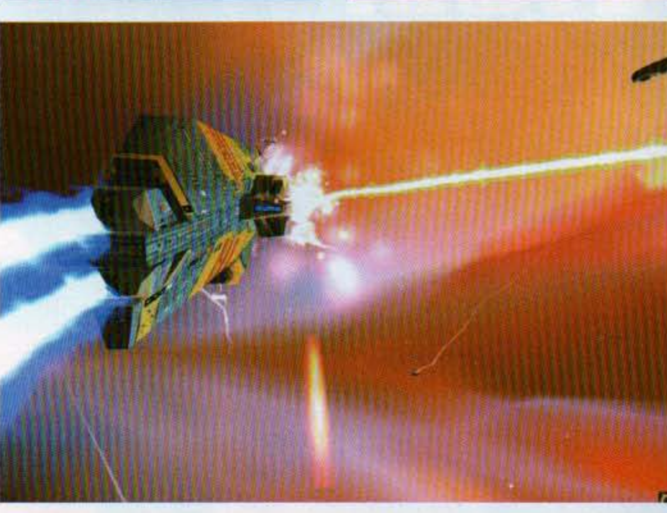
Format: **PC**

Publisher: **Sierra**

Developer: **Relic**

Price: **£40**

Release: **Out now**




The camera system lets you focus on ships and trail them as they twist through 3D space, which looks and feels fantastic. But unfortunately the two sides in the game are little more than mirror images of each other – same ships, different shapes

with significant levels of tactical intrigue. Then there's the mothership, which acts as a surrogate base and incubates smaller ships in her industrial innards.

With the standard principles of resource scrabbling and arms racing established, each mission proceeds along the approved lines of out-produce the enemy economically and outwit him militarily. There are no great surprises in the tightly scripted campaigns, the story gives each level a point and progresses at a reasonable pace, while the AI, though far from moronic, is a game sparring partner if hardly an imaginative opponent.

The key threat to *Homeworld* utopia though, is the difficulty in retaining control once battle is joined. In huge fights the engine tends to break down and skip so many frames that, while it still looks great, you can no longer influence events. And even

Combat is **nothing short of glorious** as giant capital ships hang across **a backdrop of swirling nebula** and clumsily **try to swat gnat-like fighters** that cloud around them

if your PC does cope, it's impossible to identify your units at a range distant enough to view the entire battle, while at close-quarters you lose track of the big tactical picture. The player's tactical role is to organise the fleet beforehand in the hope of creating a formation robust enough to survive an engagement that's so huge it will reduce the player to an observational capacity. Many players will reject this downgrading of their status, although it could be argued that the same problem occurs in most other realtime strategy games.

Of course, this effect evens out in multiplayer games where *Homeworld* truly distinguishes itself. A broad band of innovative options (like doing away with resource management or research altogether) allows players to customise the game as they see fit, while an artful human opponent can truly take advantage of the 3D environment and the well-defined unit types to create exciting battles of measure and counter-measure.

Homeworld is too complex to have the mass appeal of *Tiberian Sun*, and a number of design decisions will grate upon players. But it's still enormously enjoyable, prods realtime strategy in a new direction, and really ought to be played if only for the battles alone.

Edge rating:

Eight out of ten

COOL BOARDERS BURRRN

Format: **Dreamcast**

Publisher: **UEP Systems**

Developer: **In-house**

Price: **¥5,800 (approx £35)**

Release: **Out now (Japan) Christmas (UK)**













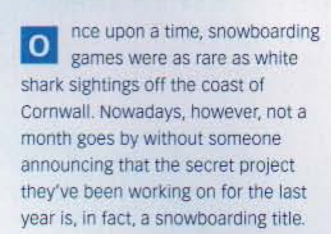
The 'Super Pipe' rather betrays its moniker by offering gameplay that fails to get the blood pumping – a crime for a simulation of an adrenaline sport



Tricks are obviously fundamental, but their implementation is hardly expert



UEP has done a fair job in creating solid-looking snowscapes, resulting in a great sensation of scale as you sail across the roofs of snow cabins



Once upon a time, snowboarding games were as rare as white shark sightings off the coast of Cornwall. Nowadays, however, not a month goes by without someone announcing that the secret project they've been working on for the last year is, in fact, a snowboarding title.

At least with this release, UEP Systems (of PlayStation *Cool Boarders* fame), can claim to be the first off the mark in the race for Dreamcast snowboarding supremacy. But others will soon be following (see *Supreme Snowboarding*, p32), and given *Burrrn's* disappointing performance it won't be long before someone else is comfortably in the lead.

Apart from the 'R' key appearing to have stuck while someone at UEP was typing out the title, the oddest thing about *Burrrn* is the fact that only one track is open as you start the game. You get to choose from 'Free Ride', 'Super Pipe' or the (admittedly decent) twoplayer 'Match Race', and one of six snowboarders, but only one slope is open. Unlocking the other four is a case of crossing the finish line as quickly as possible (and before the time limit expires), and performing sufficient tricks at specific points (of which there are usually three) to guarantee a final score high enough to allow access to the next course.

In fairness, *Cool Boarders Burrrn* does get a few things right. Surfing through chalet-lined, snow-covered narrow streets or crashing through the roof of a church may not be the pure, real off-piste snowboarding experience many may be looking for, but it makes for an entertaining collection of obstacle-strewn environments as well as serving as an example of a solidly built videogaming stage.

But ultimately *Burrrn* lacks the subtleties of Nintendo's genre-leading *1080°*. The tricks are not the most intuitive to pull off; the lack in snow variety is disappointing (indeed, the lack of a realistic snowtrail is a limp oversight); the boarders themselves hardly benefit from great animation; and the overall snowboarding feel simply isn't conveyed anywhere near as competently as it might have been.

Deciding to retain the uninspired play mechanics of its PlayStation *Cool Boarders* games, UEP Systems has simply added pretty graphics on top in the hope these would divert a player's attention away from the mediocre game lying beneath. It's enjoyable as stop-gap stuff, but has the longevity of a snowball.

Edge rating:

Five out of ten

SYSTEM SHOCK 2





Format: **PC**	
Publisher: **Electronic Arts**	
Developer: **Looking Glass**	
Price: **£30**	
Release: **Out now**	

The Psi device allows players to use a wide range of abilities. Think *Jedi Knight*'s Force abilities, only more so







Although the monster models – like those of *Thief* – are not particularly well animated or defined, the audio effects that accompany their arrival can make them genuinely alarming. *System Shock 2* can be thoroughly eerie

Certain games, despite critical acclaim and innovative design, fail to pique the curiosity of the buying public. The original *System Shock* was one such title, lauded and name-checked thereafter by the PC press, yet widely ignored at retail. It's hard to pinpoint quite why it happened – it did, after all, pre-empt *Half-Life*'s narrative-oriented progression, and was at least as atmospheric as Delphine's similarly paced *Fade to Black*. Many gamers, then, will mistake *System Shock 2* as a child of the current era – the post-*Half-Life* switch from 'twitch' gameplay to more involving firstperson adventures – when, in fact, its precursor was a pioneer of this fashionable gamestyle.

System Shock 2's RPG leanings are revealed during its opening sequences, just after players have ploughed through short training sequences. You're given the option to choose your career path prior to the beginning of the game proper. Although you do not actually play through these events, the behind-the-scenes experience they confer enhances your starting statistics. From weapon-handling to repairs skills, and Psi abilities to basic physical characteristics, these skills may then be enhanced further during your later adventures. The importance of this aspect of *System Shock 2* cannot be understated, as balancing your character's faculties is essential.

Many gamers, with their *Quake*-tinged sensibilities, will be shocked at how awkward combat can be in *System Shock 2*. With a slower, more realistic pace, and with opportunities to replenish meagre energy allocations few and far between, early exchanges are fraught with panic. *System Shock 2*'s combat system is, bar the introduction of a 'lean' function, no more sophisticated than that of any other FPS title. You point, you shoot and – clumsily, it must be said – you strafe. However, the relative vulnerability of your character adds an exhilarating air to proceedings. Ammunition is forever scarce, and the strength of your assailants grows in accordance with your own. There are, however, difficult sections where play continues in a staccato manner, while long reloads test the patience. *System Shock 2*'s razor-edged atmosphere does not come without a price.

With a tightly scripted plot, great audio, and measured, challenging progression, *System Shock 2* is a far from typical FPS outing. Its engine is not at the cutting edge of PC graphics but, grasping the baton from its lamentably overlooked forebear, it succeeds in offering an advanced, progressive spin on firstperson gaming mainstays. With all due respect to Rebellion, this is the game that *Aliens Vs Predator* perhaps should have been.

Edge rating:

Eight out of ten





The training missions (above) are a Nintendo-style touch. They are genuinely necessary, though – *System Shock 2* does not play like the average FPS adventure

SPEED DEVILS

Format: **Dreamcast**
Publisher: **UbiSoft**
Developer: **In-house**
Price: **£40**
Release: **October 14**





The betting and garage management aspects add a considerable amount of longevity to the oneplayer game







***Speed Devils*' dynamics are reassuringly arcade-like, and throwing cars through corners sideways (with the help of the handbrake) is great fun**

Naturally, the game throws up a selection of weather effects

Originally released for the PC late last year as *Speed Busters*, this pseudo-sequel retains the worthwhile elements of its predecessor and adds a few of its own into the mix.

Initially, six cars and six tracks are available but progression through the game inevitably opens up another half-a-dozen vehicles and five circuits. It's worth noting only Louisiana constitutes an entirely new track – the others are seasonal variations on existing locations. Unusually, you get an extensive selection of 'skins' with which to decorate your four-wheeled machine that, while of little use in terms of gameplay, inject a healthy dose of visual variety into the action.

Much of the game is standard fare: shockingly, 'Arcade' mode allows you to pick a track – which can be reversed and/or mirrored and seasonally altered according to your mood – and race against five CPU competitors. You start the event with a generous amount of nitro boosts in the boot (18 to be precise) and the idea is to see the chequered flag before the competition.

Every lap throws a series of obstacles your way. Don't be surprised to find mechanical sharks, rolling boulders and crashed alien spacecraft doing their best to knock you off the main track. However, if they do, it'll probably prompt you to discover one of the many short cuts offered by most circuits.

The 'Championship' option is more interesting. You start off with a mechanically unstable vehicle, enter a series of seasons (four classes with three to five races each) and hopefully win enough money to repair your car after each race. There are several ways of earning cash: finishing position in first place is an obvious one, but you also get financial rewards for securing the fastest lap, the highest speed, spending the most time in the lead, and busting speed traps. You also get to bet on forthcoming races. Once you're financially secure, it's time to look for another race car – or you may wish to tune up your existing machine – extra acceleration, speed, brakes, nitros, armour plating and specialist tyres are all available at a price.

At a time when every developer and his dog is seemingly working on the 'next *Gran Turismo*' or the 'definitive Formula One simulation', it's refreshing to come across something that boldly steps outside both of those realms. While not outstanding in any particular regard, *Speed Devils* is good entertainment that should captivate anyone tired of realistic racers with its accessible and player-friendly arcade-like nature.

Edge rating:

Seven out of ten



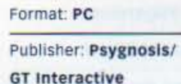
Every lap offers something new. Whether simply ornamental (above) or otherwise, it at least gives you something to admire when leading

DRAKAN









Format: **PC**

Publisher: **Psygnosis/ GT Interactive**

Developer: **Surreal Software**

Price: **£35**

Release: **Out now**



There's real attention to detail in the way weapons cause damage in *Drakan*, although on the whole the combat is rather rudimentary



It would be all too easy to dismiss *Drakan* as a cynical cash-in. The use of a scantily clad heroine and accompanying real-life model in particular apes *Tomb Raider* just a little too closely.

And, at first glance, the gameplay is redolent of a marketing-led approach, a potpourri of familiar game ideas, from *Mario 64* and *Zelda 64* to Lara's outings, promising little. Yet the finished game is a pleasingly classy affair, the constant switching between on-foot exploration and dragon riding adding a genuinely refreshing twist to the action.

Naturally the backstory is the usual fantasy junk, with heroine Rynn falling prey to an ambush and witnessing the kidnapping of her younger brother, but provides ample excuse for a set of impressive environments, replete with snow-capped mountains, lush valleys, cave networks, and the usual assortment of *Dungeons & Dragons*-derived creatures. From the off, *Drakan* works hard to create a coherent world, using some beautiful textures and character animation to bring Rynn and her foes to life. Moreover, the seamless transition between indoor and outdoor locations, rendered with far horizons in the latter, adds a rare sense of immersion.

Drakan also impresses with its pacing, building up a strong challenge before Rynn actually meets the dragon, and alternating airborne and ground-based sections regularly thereafter. Although the player is actually channelled down a fairly linear pathway, the freedom within each individual area adds a strong sense of scale to the adventure, while realtime generated cut-scenes further enhance continuity.

The dragon-based sequences are easily the most attractive, a finely judged control system making it a pleasure to put the well-animated creature through its paces. The sequences performed controlling Rynn contain the most substance, though, with a range of movement controls to rival most dedicated platformers, and a number of weapons and simple attack combos adding variety to combat. Here too *Drakan* proves strong on detail: swipe at a crate and its constituent parts scatter, while accurate slashing at an enemy can result in the removal of specific limbs or quicker kills.

Yet even with such subtleties, combat inevitably boils down to routine hacking, Rynn's agility counting for little when faced with more than one enemy. And while the creatures move impressively enough, their AI and trigger-based behaviour leaves much to be desired. Coupled with overly simplistic puzzles of the switch-pushing variety, gameplay becomes just a little too routine. The addition of that dragon counts for much, and what's here plays remarkably fluidly. But ultimately *Drakan* is no PC answer to *Zelda*. And while that's no crime, it's a shame to see something loaded with so much potential narrowly miss such dizzy heights.

Edge rating:

Seven out of ten







***Drakan* is one of the first games to use the Matrox G400 card's bump-mapping capabilities, creating water reflection and dragon scale effects**

TONY HAWK'S SKATEBOARDING

Format: **PlayStation**

Publisher: **Activision**

Developer: **Neversoft**

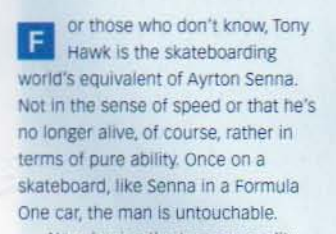
Price: **£40**

Release: **Out now**



Building your trick-performing proficiency is surprisingly swift





With myriad options available, discovering every possible route through *Tony Hawk's Skateboarding*'s well-designed levels will take some time









The game offers digital skateboarders a welcome mixture of urban settings and dedicated skate parks

For those who don't know, Tony Hawk is the skateboarding world's equivalent of Ayrton Senna. Not in the sense of speed or that he's no longer alive, of course, rather in terms of pure ability. Once on a skateboard, like Senna in a Formula One car, the man is untouchable.

Now, having the top personality within a particular sport endorse a videogame is certainly no guarantee that the game will be up to scratch. It can easily go either way: *Colin McRae Rally* was a pleasant surprise, while, ironically (and sadly), *Ayrton Senna's Kart Duel 2* wasn't. No reason for scepticism on this occasion, though, for this is one of those rare success stories: *Tony Hawk's Skateboarding* is great fun.

Naturally, you get the chance to pick more than just Hawk before going off to grind the vertices of the local neighbourhood's environment. Each of the nine skaters on offer is also a star from the real world, possessing strengths in different areas. After a little trial and error, then, you're bound to find one that best suits your style.

The game begins with only the training arena open and predictably the other eight courses (three of which are competitions where you must finish in the top three to go further) become accessible progressively. To do this you must earn videotapes (skateboarding videos detailing the exploits of the world's best skaters being hot property among their followers). Every time-limited stage has five tapes available – two for reaching specific score barriers, one for a specific task (knocking over five 'No Skateboarding' signs, for example), one hidden, and one for collecting the letters S-K-A-T-E (not necessarily in order).

The array of tricks on offer is impressive and although initially daunting, you'll soon be pulling some rewarding manoeuvres with ease. Real-life skaters will love the way they can apply their knowledge with genuine (and advantageous) results. But the beauty of *Tony Hawk's Skateboarding* is the way that anyone can derive enjoyment from it. Which makes its faults all the more annoying. Put simply, the PlayStation cannot handle the environments Neversoft has asked it to draw without the odd polygon break-up, and this immediately affects the suspension of disbelief. There's just no way your surroundings feel as solid and believable as those of, say, *1080°* on the N64. Also, unlike Nintendo's game, the control system is not as fluid as it might have been. That's not to say it's disastrous – for the most part the feel of controlling a polygonal skater is convincingly achieved – but there are occasional instances when things get a little too awkward.

But until something better comes along, this is easily the finest skateboarding game around.

Edge rating:

Seven out of ten

WIPEOUT 3








The addition of a twoplayer mode (main) is the big news in *Wipeout 3*. It's a well-executed feature, boasting smooth visuals and busy race sequences

Format: **PlayStation**
Publisher: **Psygnosis**
Developer: **In-house (Leeds)**
Price: **£35**
Release: **Out now**

Wipeout 3: the display is hi-res, the play system has been reorganised, analogue control is now available, and the graphics have turned to the dark side. The Designers Republic has again provided the design ethos; Orbital are included in the all-techno soundtrack; and, unless you have the reflexes of a cat coupled with the memory of an elephant, you'll never complete the harder tracks.

In other words, everything has changed and everything has remained the same. As before, the new *Wipeout* is an aesthetic champion: visually and audibly, it ranks as one of the finest technical achievements ever on any platform. The tightly programmed graphics engine results in a much-sharpened display, running in PlayStation's 512x384 resolution. Use of Nintendo's Expansion Pak appears a lazy fix by comparison.



As before, energy is recharged by flying along power channels

The development team at Psygnosis Leeds was conscious of the fact that *Wipeout 2097*'s various play modes lacked coherence. Strict adherence to the new game's minimalist 'hardcore' approach has resulted in a more logical structure, yet it's not always clear what the actual aim of some options is (particularly the 'Eliminator' mode), without referring to the instruction manual. In 1999 such things are rapidly becoming *passé*.

Fortunately, the 'Challenge' and 'Tournament' options are far easier to navigate, although the same cannot be said of the later rounds of the latter, which suffer from a questionably steep difficulty curve – even stepping from the initial 'Venom' to the following 'Rapier' class demands more than should be expected from the player. Because the tracks have no run-off area (a perennial problem/'feature' of the *Wipeout* series), the slightest mistake is punished by your craft clonking into a wall, losing most of its velocity, and invariably the race. Purists may argue that practice makes perfect, but for the majority it will simply make for tiresome frustration.

That said, *Wipeout 3* is far more involving than stablemate *Rollcage*, because you have better control of the action. Other new features like widescreen compatibility and a twoplayer mode are welcome, but do little more than keep up with the Joneses. While a PS2 version seems inevitable, it will need more than improved graphics to impress gamers in the 21st century.

Edge rating:

Seven out of ten





With renowned dance DJ Sasha pulling the musical strings, *Wipeout 3* is backed by a solid lineup of 'name' artists. Orbital return for a third outing

SEGA RALLY 2 (PAL)

If a reminder of how quick the rate at which the videogaming world moves is needed, then this PAL version of *Sega Rally 2* serves fine.

Arriving nine months after the Japanese original, this update remains reasonably close to its NTSC parent. Gone are the Ford Escort WRC and one of the Toyota Corollas and in come the cheeky Fiat Seicento Sporting and Peugeot's new 206 WRC (the latter replacing the 106 Maxi also previously in the game). And apart from a change in music, everything else remains the same: the same graphics, same options, same tracks, and same great playability.

Which, ironically, is part of the problem. The game's black borders are almost forgivable (a 60Hz option is not evident, although the speed appears to have been optimised) as is the continuing shift in frame rate every time a corner is taken, but it would be unfair not to point out that some aspects of the game now appear a little lightweight.

Ultimately, while always meant as an arcade experience – and a very enjoyable one at that – *Sega Rally 2* has undeniably aged prematurely.

Edge rating:

Seven out of ten







For the PAL release of *Sega Rally 2*, out go the Ford Escort WRC and one of the original's Toyota Corolla, and in come the Fiat Seicento Sporting (above) and Peugeot 206 WRC (right)

Format: **Dreamcast**

Publisher: **Sega**

Developer: **In-house**

Price: **£40**

Release: **October 14**

VIRTUA FIGHTER 3TB (PAL)

Just a few months ago, *Virtua Fighter 3tb* looked like it would be *the* beat 'em up for prospective Dreamcast owners. Now things are very different thanks to this rather lazy PAL conversion and the spectre of *Soul Calibur* on the horizon.

Every gamers' worst nightmare is realised here, with intrusive borders and a 17.5% drop in speed serving to blot Sega's copybook.

Despite the company's inability to address vital PAL conversion issues, however, it has at least engineered a Vs option (a criminal omission in the first place) for the PAL version.

But this may not be enough to prevent UK gamers – who thought they'd seen the back of such shoddy conversion work with the passing of the Saturn's first generation of software – from bashing their heads against walls in anguish.

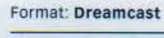
Edge rating:

Seven out of ten











The characters and backgrounds retain their visual impact in this PAL conversion – at least in static shots. Fortunately for Sega, the audience it is aiming Dreamcast at will not be familiar with the full-screen, full-speed NTSC original

Format: **Dreamcast**

Publisher: **Sega**

Developer: **In-house**

Price: **£40**

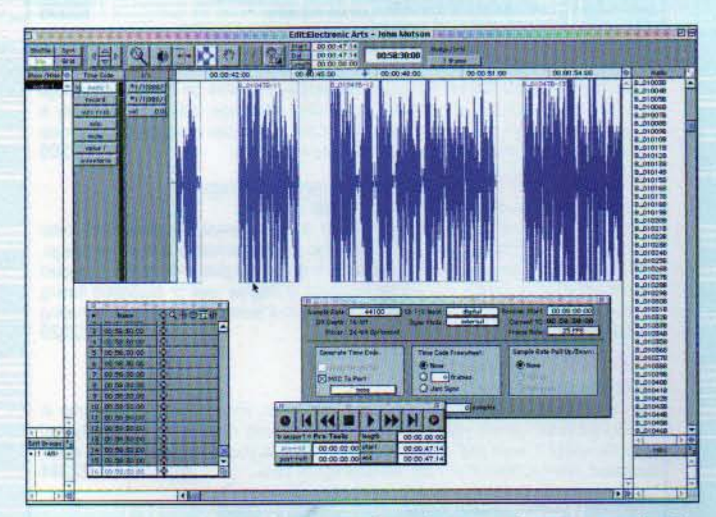
Release: **October 14**

Big Audio Dynamite: the realtime editing of John Motson for *FIFA 2000*



The acceptable voice of *FIFA 2000*: John Motson

With the expectation of *Shenmue*, it's hard to think of any games that utilise as much audio information as EA's *FIFA* series. But consider that, while the non-Japanese versions of Yu Suzuki's epic RPG will have to settle for English subtitles, the next iteration of EA's series, *FIFA 2000*, will be available in ten different languages. Put this way, it's easy to understand the monumental task confronting Aquarium Studios, the audio team behind EA's flagship title.



With its modified version of Avid's *ProTools* package, Aquarium can record and edit commentary in realtime, saving work and speeding up game development

"We spend seven days sitting in the studio with the three commentators, recording about 6,000 sentences and over 8,000 team and player names," explains Aquarium's **John Hide**. And even with those commentators including the likes of 'Match Of The Day' stalwarts such as John Motson and Gary Lineker, it can still be a tedious experience.

The traditional methods dealing with this situation involves recording each audio sentence onto DAT, then loading it onto a hard disc editing system, editing and compressing it before finally filing it. "It was just so time consuming and the amount of time we'd spend deciphering what an earth was going on when, say, 30 DAT of Greek audio arrived, was incredible," Hide recalls. The process could take up to three weeks per localised version.

So in order to maintain their sanity, the three-man team decided to develop a realtime system. Now they simply record the sound direct to a G3 laptop, editing it through Avid's *ProTools* package which has been optimised with what they mysteriously refer to as a couple of 'tweaks'. "By the time John Motson's finished his sentence, we've got the thing edited," explains Hide. "Obviously when you're playing the game, you don't want any delay. If a goal is scored, the sound has to be as responsive as possible, so we edit the back and front very tightly."

The other half of Aquarium's system deals with compression processing. With *FIFA 2000* involving around eight hours of audio, it needs to be compressed by as much as 15:1 to fit on a game CD. "We use another G3 to compress the sound while the recording is taking place," Hide says. So, mere hours after the recording sessions are over, the finished audio product is complete. "EA were taken aback by the speed," he boasts, with a justifiable measure of pride. And with languages for *FIFA 2000* including Korean and Japanese, the other main advantage of the system is its mobility. It's recently just arrived after a trip to Israel, for Hebrew commentary.

But, as Hide alludes, it's not all work without fun. "I'll let you into a secret," he confides. "*FIFA 2000* has something very special in the audio department. All I can say is that it's a complete coup for EA."

WorkStation

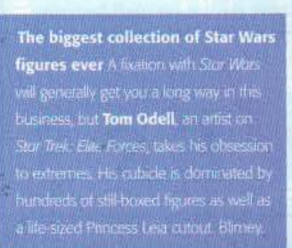
While most developers' desks serve as home to a smattering of action figures, the guys at Raven Software have taken this particular aspect of developer lore to extremes. The fact that many of the artists have a background of 2D artwork, ranging from comic books and RPG boardgame covers, goes a long way to explaining their fixation.

Body details Animation lead, **Eric Turman**, takes a professional interest in the workings of the human body, particularly when it comes into contact with bullets. As this picture was taken, Turman was sketching abdominal details from *Gray's Anatomy*. It should make those groin shots even more convincing





Masters of the Universe While He-Man was a cult figure once upon a time, it somehow seems an age ago now. However, **Jarrod Showers**, an artist on *Soldier of Fortune*, still keeps the faith, with the attributes of BattleCat, Ram-Man and Man-at-Arms all listed on his handy wall-chart



The biggest collection of Star Wars figures ever A fixation with *Star Wars* will generally get you a long way in this business, but **Tom Odell**, an artist on *Star Trek: Elite Forces*, takes his obsession to extremes. His cubicle is dominated by hundreds of still-boxed figures as well as a life-sized Princess Leia cutout. Blimey





More obscure figures These could well be from *Spawn*, but **Edge**'s knowledge of small plastic figures does have limits, you know

Members of the development community (sane or otherwise) are invited to email WorkStation submissions to **edge@futurenet.co.uk**

The trials of a start-up developer: part 15

After co-founding Lionhead Studios with Peter Molyneux, **Demis Hassabis** set up his own development house, Elixir Studios. In the latest instalment of his exclusive diary, he ponders the gaming possibilities of today's state-of-the-art technologies and beyond

Why technology vs gameplay?

There's a long-running debate centring on the roles and relative importance of gameplay and technology in computer games. The perceived wisdom is that too much time is spent on technology, and too often to the detriment of gameplay. Developers are supposedly obsessed with technology and spend their time churning out glorified technology demos that have little to with the man on the street and everything to do with impressing other programmers. I don't agree with this view. Technology can revolutionise gameplay – it can allow you to create games you couldn't even have dreamed of five years before.

The biggest change over the last couple of years has been 3D acceleration. Game graphics have been reinvented. In one sense this change has been cosmetic: yes, *Mario 64* looks fantastic, but does it play any better then the original 2D *Mario* platformers? But this is just one part of the story. To illustrate my point, consider what we've been doing at Elixir. Our technology will fundamentally affect and improve the gameplay in our games.

For the last eight months we've been working on new graphics technology that will represent a fundamental advance over any visualisation engine currently in development. For the uninitiated, here's a quick and simple explanation of what a graphics engine does (apologies to those of you who already know).

Depending on the level of detail you want, each model in a scene will be made from anything between a few dozen polygons to a few thousand. A tree, for example, would probably be constructed with a hundred polys because it's relatively unimportant. A character in a PlayStation game on the other hand might be made up of 450 polys. Every time the view in a game changes, the computer has to redraw each of these polygons. The more polygons there are to redraw, the slower the process is. This is called the frame rate.

So when your computer chugs like a dog when running *QIII Test*, it's because it's trying to draw too many polygons per frame. In order to keep the game going at a reasonable speed developers have had to limit the amount of detail in their games. We're about to change this forever.

Ceri, our new artist, started a couple of weeks ago. On his first morning I took him through our game. At the end of it, I asked him: "How do you fancy working with an infinite-polygon engine?" He almost fell off his chair. Next I showed him a tree, which was made of a million-and-a-half polygons. The detail is incredible, right down to the moss growing in the cracks in the bark. I had to help him back to his desk.

For a games artist, this is a dream come true. Before now, programmers have always told artists, 'You can only have 200 polygons to make that car with'. Now we're saying to them, 'Give us more polygons, as many as you can handle'. This has caused problems, though – the professional art package we use on monster PCs simply can't handle some of the larger models we're making.

How will technology like this affect gameplay? Simply put, it allows designers to create a world more believable than any that have ever been made before. Photorealism is no longer just a fantasy, it's a stone's throw away from becoming reality. There is no limit to the detail we can place in our game. There are no restraints on how objects are modelled. Players might see a forest in which there are countless high-poly trees stretching to the horizon. This can only make a game more believable. A game that's more believable is more likely to draw you in, making it more enjoyable. Developers are on the verge of creating games that are the equal of films in terms of their atmosphere. How can this fail to improve the gaming experience?

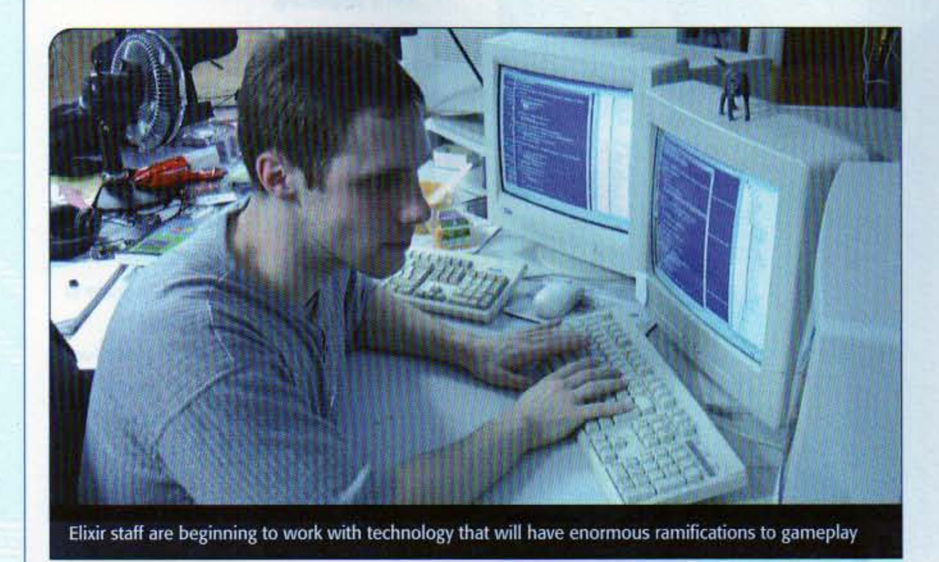
"Some of my friends couldn't care less how a game looks. One of the guys here at Elixir describes playing *NetHack* in its original ASCII form as the pinnacle of gaming. But the fact is that he's in a minority"

The 'cinematising' of games is just one way of harnessing technology to improve gameplay. There are many other ways. Artificial Intelligence, for instance – without innovation in this area you would never have seen a *Sim City* or a *Theme Park*. And what about networking? Multiplayer gaming simply wouldn't exist without the technology. There are also numerous smaller examples of technology improving gameplay 'on the ground'. *MDK* for instance made a gameplay feature of the sniper rifle and its ability to zoom into targets. Improved AI techniques will allow players to give formation orders in *Age of Empires II*. Technology can, without doubt, drive gameplay innovation.

I'm sure that a lot of gameplay zealots will remain sceptical. Improvements in graphics technology in particular are a soft target. Some of my friends couldn't care less how a game looks. One of the guys here describes playing *NetHack* in its original ASCII form as the pinnacle of gaming. But the fact is that he's in a minority. Like it or not, a lot of the PlayStation generation of gamers really do care what their games look like, and *NetHack* is the perfect example. Bill Roper, head of Blizzard, recently admitted that *Diablo* is basically *NetHack* and *Angband* with pretty graphics.

Whereas *Diablo* was a commercial blockbuster, *NetHack* will never have anything more than a small but dedicated following of the hardest core gamers. Massmarket games need massmarket production values, particularly if you're asking people to pay £50 for them. The days of risible 2D sprites and inadequate graphics are gone forever.

Contrasting technology and gameplay is a bit of a false dichotomy. It's like asking whether grammar or vocabulary is more important in learning a language. Obviously you need both. Of course technology isn't the end in itself, but there's no doubt in my mind that in years to come technology will increasingly allow us to create hitherto undreamed of games. George Lucas says he waited 16 years to make 'The Phantom Menace' because the technology simply didn't exist to do it before. Apply this thought to games and then dream about the future.



Elixir staff are beginning to work with technology that will have enormous ramifications to gameplay

The trials of a rock'n'roll games publisher: part five

Brian Baglow, public relations manager at Rockstar Games, recounts the tricks and traumas involved in producing *Grand Theft Auto 2*, the sequel to one of the most successful games in recent years. This month he reveals the secrets of what some believe to be the cushiest job in the world...

Playtesters, it is generally assumed, have the best job in the world. 'Why, they do nothing but play games all day', you'll frequently hear, 'for money!' Usually followed by a request to find a brother/son/cousin/boyfriend a job, because they 'really like games'.

Startlingly enough, it's not that simple. To test a game as large and complex as *GTA2* can take several months – even years. And it's not just a case of playing the game. "There are two aspects to testing a game," says **Craig Arbuthnott**, the head of DMA's support department. "The first is purely code based. We have to make sure that the game runs correctly. Crashes or freezes are unacceptable.

"The second is the actual gameplay. Once it's running, you have to make sure that all of the different aspects of the game – the car handling, weapons, missions and the police – all have to be balanced and refined. The game has to feel right."

This process is currently occupying the test departments in DMA, Rockstar Games and Take 2 (on both sides of the Atlantic).

"The initial problem with *GTA2* is the sheer scope of the task. Testing the original game kept an entire team of 20 testers usefully occupied for well over a year," says Arbuthnott. "*GTA2* has three 'districts' within the city and each of these has three gangs, each with their own missions."

To ensure that each and every aspect of the game is tested comprehensively, the different departments are all work to the same 'test plan', in which the constituent parts of the game are broken down, together with explicit instructions on how they should each work. The testing then comes down to a simple question: does it work?

"This, of course, all gets complicated when you start talking about the missions," Arbuthnott laughs. One of the most unique aspects of *GTA* and now *GTA2* is the sheer number of ways in which the missions can be completed and, more importantly, failed. Trapping all of the different failure conditions for the games hundreds of missions is one of the most vital aspects of the testing we're carrying out right now."

"I had to find this guy and I was on foot running towards him when suddenly a car next to him on the road was stolen. The police hit the siren, pulled a U-turn and ran right over him"

As Arbuthnott explains: "What we have to look for are all of the unusual circumstances which can occur. For instance, if you have to talk to some guy in the street so he can give you a mission, and you set fire to him with a flamethrower, what will happen? We have to know. Even more obscure would be picking up the mission then setting fire to him, or having a car vital to your mission resprayed – will it still work?"

There are some truly ambiguous mission features. **Alan Jack**, one of the district lead testers at DMA, had a 'Twin Peaks' experience while playing an early mission. "I'd been asked to go and find this guy in one area of the city," he explains. "I was on foot and running towards him, when suddenly a car on the road next to him was stolen by a thief. Unfortunately it was also right next to a passing police car. The police hit the siren, pulled a U-turn and ran right over the guy I was supposed to talk to." He smiles. "It was totally cool to see, but it did occur to us that this might prove problematic later on."

Like crop circles, testing can throw up problems which cannot easily be explained. "You have to be able to find bugs again," explains another district lead, **Sean Taylor**. "If the programmers can't recreate the bug, they can't fix it."

For this reason, one of the most important tools in bug testing is the video recorder. "If you can watch exactly what's going on, it gives you more of an idea what might be going wrong," says Taylor. "Watching four programmers trying to recreate the 'Invisible Policeman' bug that you only saw once at 3:00am can be a deeply scary experience."

"That's probably the worst part of the job," says Jack. "Imagine having to break the news to a programmer who's been working 12 and 14 hours a day, seven days a week for a month, that he can't go on holiday because you've just found an A-class bug in his code – and it'll take a week to fix."

The other important task is resolving the actual gameplay. *GTA2* has been designed to allow the testers easy access to a large number of variables within the game. The statistics and attributes of every vehicle in the game can be modified in real time. The behaviour and attributes of pedestrians, emergency services and gangs can all be varied according to how the testers believe the level is progressing.

"One of the more insane parts of the game is the police response," says Arbuthnott. "We've spent weeks trying to ensure that it's right. The one thing we don't want is for experienced *GTA* players to find the first hour of *GTA2* too easy. Then again we don't want new players to find the game completely impossible either." This has led to some improbable conversations. "We found ourselves confronted with questions like, 'How many rednecks does it take to get a SWAT team?' It all got rather strange."

The last word goes to Jack: "It takes more than you'd think to test games all day. You need to really care about The Game. You can't care about anything but creating the perfect bug-and-quibble-free Game at the end of it all. If you do that then, in the end, it's worth it."

Trust me. It's true.



To the man in the street, testers such as DMA's team working on *GTA2* may have enviable jobs, but their work is crucial

an audience with....

howard lincoln

As the president of NOA, **Howard Lincoln** has experienced success... and even more success. And then along came a console called the Sony PlayStation. Even in the face of stiff competition, however, **Edge** finds one of the industry's highest rollers in bullish spirits at ECTS...

Edge: The N64 is coming to the end of its lifespan, and you're working on Dolphin technology. How does this kind of transition affect the company?

Howard Lincoln: Well, I think Nintendo is pretty experienced in transitions like this – we've done it a number of times. I think we do a very good job with the back half of hardware cycles. Part of that is pricing, but the other part of it is that we continue to make good software and support the system until it reaches the end of its natural life. For example, in the United States we sold through over a million Super NES hardware units last year, and we'll do somewhere between half a million and up this year. And that's an indication of how long we can continue to support existing platforms. Certainly there's a lot of excitement with Dolphin, with the kind of things we can do with that platform... Everything about the Dolphin is going to emphasise speed, speed, speed. There's a lot of interest on the part of game developers in Dolphin, and working behind the scenes we're talking to a number of thirdparty publishers. Quite a bit of work is already underway and I would anticipate that we will have some very fine development tools for Dolphin, and they will be available towards the end of the year. And I think that it would be fair to say that both Dolphin and PlayStation2, from a graphic standpoint, will be an extraordinary leap over and above anything that presently exists.

Edge: You're obviously working with some very big partners. How difficult – or, indeed, how easy – was it to find them and get them to work with you?

HL: It's always difficult to find good game developers, it's not difficult to find game developers, but distinguishing the two I think is something that Nintendo has a very good track record at. Certainly our investment in Rare, and our relationship with the Rare people, goes back to the mid-1980s when we first met the Stamper brothers. Now we have helped nurture Rare Ltd into certainly the premier secondparty developer worldwide. We have other companies that we are making strategic investments in, but we're very careful to limit those investments to really first-class developers. Retro Studios comes to mind – companies like that. I think it's becoming more difficult because there's so much competition out there for good game developers. We are, as you probably know, sponsoring Digipen, which is located in the Nintendo campus in Redmond, and we are taking advantage of that sponsorship by getting some really talented people into Nintendo or into Nintendo secondparty developers.

Edge: Looking at the sales figures for N64 titles that have performed exceptionally well, they're Nintendo-developed games and they're selling around ten million units. But some of the smaller scale titles from thirdparties may sell only 50-100,000 units. Is there a possibility that, in the future, the only *really* successful games on Nintendo formats will come from Nintendo itself?

HL: No. Actually I don't fully agree with what you just said. I think it *is* true that some of the mega-hit games have come from Nintendo or Nintendo secondparty developers, I can't quarrel with that, but I think





"I can assure you that Nintendo will *never* allow Sony to put itself in the position of being a de facto standard"

thirdparty companies that have really gotten behind N64 have really seen huge numbers – I'm thinking of some of the games like *Turok*, some of the games from Konami and whatnot. EA has had some very good success in some of their sports titles for N64. I think that the thirdparty publishers have tended to gravitate to the Sony model because they feel there is a competitive disadvantage in the cartridge software medium. I can't quarrel with that. We're certainly going to eliminate that competitive disadvantage. I think we have had an extraordinary outpouring of interest in Dolphin from thirdparty publishers. There isn't a thirdparty publisher in the world that is not platform agnostic – they would much, much rather have two platforms that are viable – Dolphin and PlayStation2 – rather than a de facto standard PlayStation2. And I can assure you that Nintendo will *never* allow Sony to put itself in the position of being a de facto standard. That's not going to happen.

Edge: N64 *Zelda* took an inordinately long amount of time to produce. How do you think new hardware such as Dolphin and PlayStation2 will affect development times?

HL: Well, one of the things we did as we started work on Dolphin was to look at all of the things that we had done right with N64, and all of the things that we could improve upon, based on our experience. Certainly one of the areas of improvement was development tools: the availability of those tools, the ease of use of those tools, the pricing of those tools, and the ease of making Dolphin games, so I think you'll find – and we're seeing this in the initial reaction of thirdparty publishers to Dolphin – that it's going to be much easier to develop games for Dolphin than it was for N64, and I believe that it will easier than on PlayStation2. And that, on our part, was a deliberate decision based upon our experience.

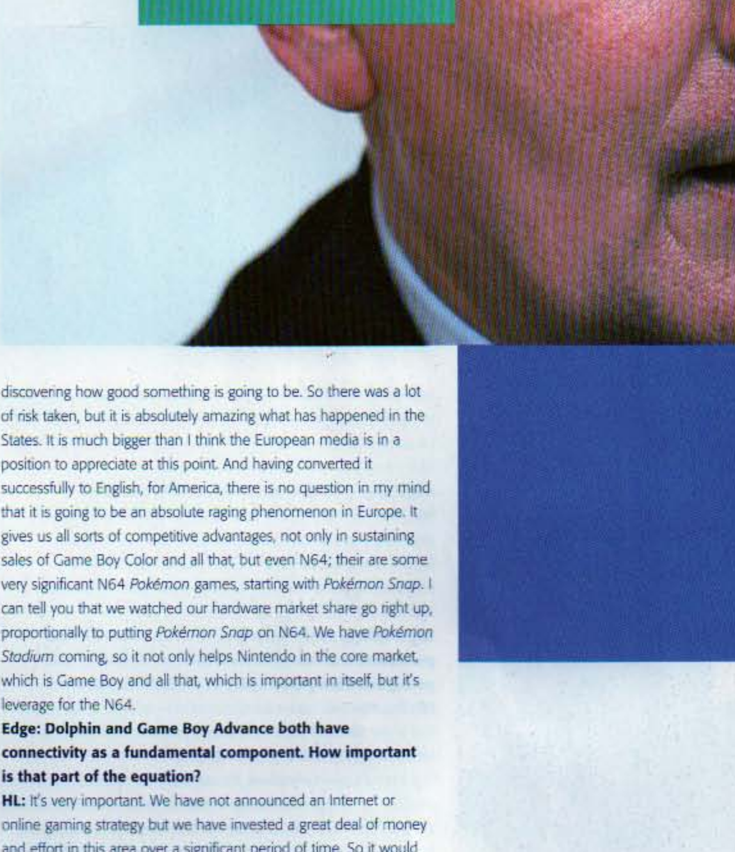
Edge: What sort of software do you envision being produced for Dolphin?

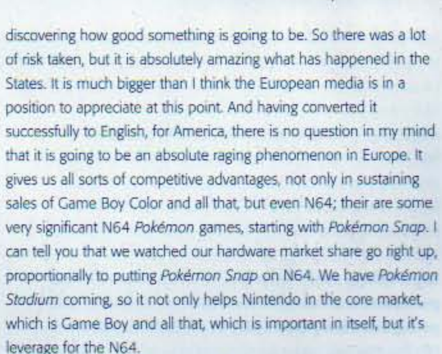
HL: I think certainly you're going to see software that takes advantage of Nintendo's franchise characters, and by that I'm not just talking about Mario, but Mario and Zelda, Donkey Kong, Perfect Dark, etc. I'm hopeful that we will see more RPGs. I'm hopeful that, maybe not at the introduction, but over the life of the Dolphin platform, maybe see developers that we're not used to dealing with. I think one of the things that we will clearly bring to the table, and one of the things that we have been working on very hard with N64, is to increase our marketshare in the sports arena, so we'll certainly see a plethora of sports titles, and I think you'll see those not just from Nintendo but from major thirdparty publishers. Other than that, it's really hard to say, because it's hard for me to tell you... I can tell you it's going to be easier to develop for Dolphin but exactly what that leads to, I'm really not sure of.

Edge: *Pokémon* has crossed cultural boundaries even though it once looked like a very Japanese title that would not appeal to the west. Are you looking at other Japanese properties like that, properties that once upon a time you might have thought would not work outside of Japan?

HL: I think *Pokémon* is pretty unique. We'll certainly keep our eye out for other properties, but I think what will actually happen is that... *Pokémon* is a once-in-a-lifetime kind of experience; the depth of the game, the ability to leverage not just the game, but the television show, the movie, the licensed merchandise. I think it's going to be very difficult to find another *Pokémon* any time soon. I can tell you that we were quite sceptical about whether we would be able to translate *Pokémon* to the US market. It was very difficult to get our heads around it because we rely on our experienced gameplayers internally to judge how good a product is, and we had a very difficult time trying to get them to understand *Pokémon*, since we had a Japanese translator sitting next to them as they were playing the games, which is not the most opportune way of

Photography: Jude Edginton

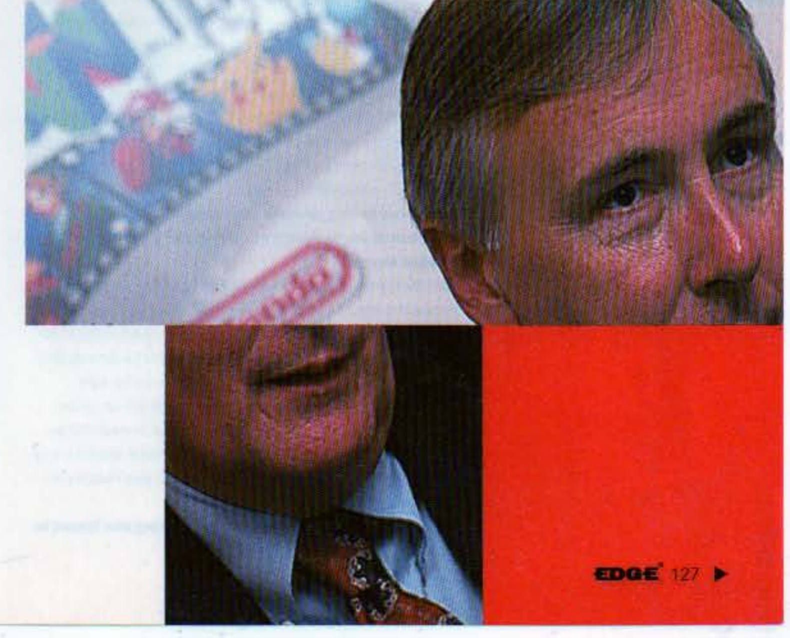




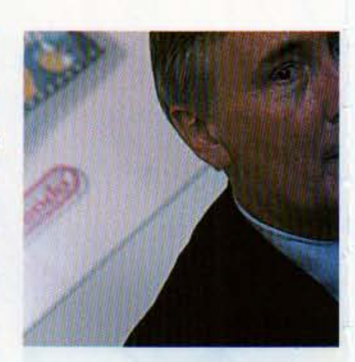
discovering how good something is going to be. So there was a lot of risk taken, but it is absolutely amazing what has happened in the States. It is much bigger than I think the European media is in a position to appreciate at this point. And having converted it successfully to English, for America, there is no question in my mind that it is going to be an absolute raging phenomenon in Europe. It gives us all sorts of competitive advantages, not only in sustaining sales of Game Boy Color and all that, but even N64; their are some very significant N64 *Pokémon* games, starting with *Pokémon Snap*. I can tell you that we watched our hardware market share go right up, proportionally to putting *Pokémon Snap* on N64. We have *Pokémon Stadium* coming, so it not only helps Nintendo in the core market, which is Game Boy and all that, which is important in itself, but it's leverage for the N64.

Edge: Dolphin and Game Boy Advance both have connectivity as a fundamental component. How important is that part of the equation?

HL: It's very important. We have not announced an Internet or online gaming strategy but we have invested a great deal of money and effort in this area over a significant period of time. So it would be a mistake to assume that just because we haven't announced anything, nothing exists, because that's not true. I think, particularly in the United States, connectivity and online gaming is extremely







important, and I think we are spending the necessary time and effort to see if we can get that right. I had anticipated that we would have an announcement sometime this summer, just after E3, but things didn't work out, so we're still working on that.

Edge: Why is Shigeru Miyamoto at ECTS this year?

HL: I think primarily it's because Nintendo wants to make it very clear how important the European market is to us. Also, Mr Miyamoto wanted to see an ECTS for himself, and we have scheduled appointments for him with media while he's here, and he's also going to go up to Rare after the show.

Edge: Talking about the media, what do you think their perception is of Nintendo nowadays, compared to their perception during the heyday of the NES, for example?

HL: Any time you have a predominant marketshare, as Nintendo had in the NES and Super NES days, I think the media is going to take a very close look at your company and I think when you have that kind of large marketshare, it's very easy to project an omnipotent attitude – a feeling, even though it may not exist. I think that certainly was the case: there was a perception that Nintendo was arrogant, that it was inflexible, that it was difficult to deal with, but I think a lot of that was just perception – people that were at the company then, and people who are at the company today, I don't that we're arrogant people by nature, but because of the large marketshare, because the industry was growing so rapidly, because we were growing so rapidly, those things happen. I think now the perception is that Nintendo is a much more competitive company, a much more flexible company. One thing that is consistent between Nintendo in the NES days and Nintendo in the N64 days is that Nintendo makes a hell of a lot of money. And Nintendo was very strong, it had no debt, and billions of dollars in cash in the NES days. Nintendo has even more billions of dollars in cash now and we still do not have any debt. That is certainly attributable in a large part to [NCL president] Mr Yamauchi.

Edge: Does having so much cash mean that you're able to take more risks, or does it mean that you exploit proven revenue avenues?

HL: I think we're a pretty conservative company by nature. I think Mr Yamauchi is a conservative fellow. I think he feels very strongly that people tend to forget that what goes up can go down. Being in the game business is a very risky business. I think that his determination to remain focused in the business has always been the right decision. But we are certainly in a position where we can, at the appropriate time, invest in game development or in areas that are close to the videogame business, and we have done that from time to time, and we'll continue to do it. Some of our past investments have been public and some haven't.

Edge: You talked earlier about never allowing one format to rule over every other. How much pressure do you feel from competing technologies, such as Dreamcast?

HL: I wouldn't think that we feel pressure. The idea that Nintendo and Sony – both very, very strong companies – are competing as vigorously as they are in the next-generation hardware arena is really good news, not only for videogame players, or for the videogame industry, but for Nintendo and Sony themselves. So I regard this as extremely healthy, and very beneficial to our industry. If we didn't have this, then the videogame industry would be much more likely to see troughs. It's the competition that keeps both sides on their toes, and keeps pushing the technology. If the competition is not there, it's easy to relax.

Edge: So how do you think Sega will perform in the west with Dreamcast?

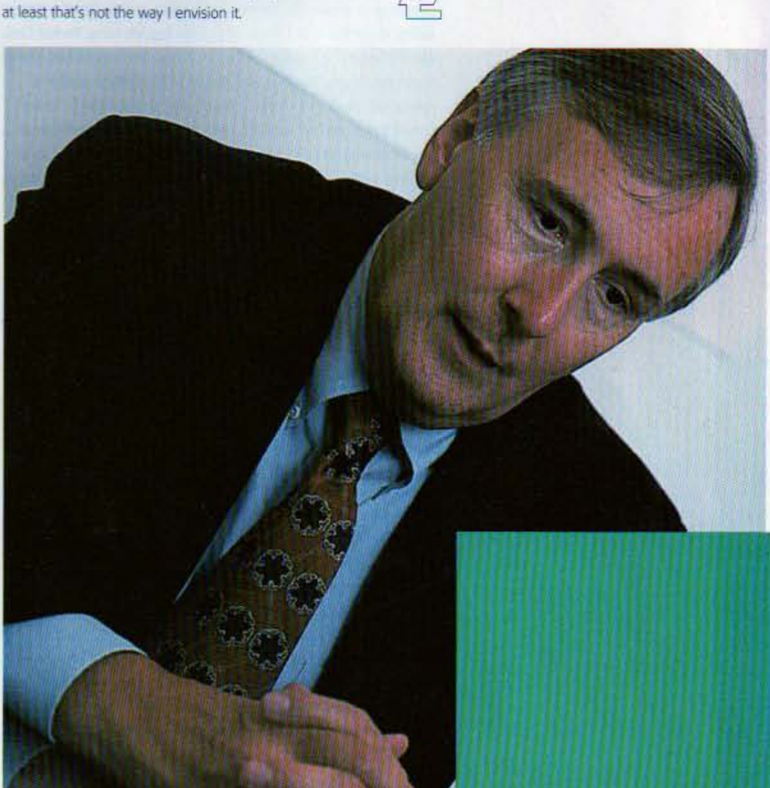
HL: I think Sega will probably do well initially in the States; certainly the preorders that they've obtained have been very impressive. I think they continue to shoot themselves in the foot. The Bernie Stolar thing was a fiasco, and that's been compounded by the arrest of Mr Okawa, who was the chairman of CSK, apparently for Sega stock manipulation – that happened a week ago. So they continue to do things like this where they shoot themselves in the foot, and I would be very interested to see how they treat retail in the US. It remains to be seen if they will repeat what they did with Saturn, when they really upset a few major retailers, which is not a good idea. They may well repeat that.

Edge: How long do you think the Game Boy will be around for? It's lasted ten years already, which is an insane amount of time for a console.

HL: I think for the foreseeable future, in various iterations. I think the brand is so strong worldwide, it's synonymous with handheld videogames, and that's actually a growing segment of the market. In the US, somewhere between the 20-25% of the entire videogame market is handheld. That's a significant amount.

Edge: Talking of synonymity, once upon a time the word 'Nintendo' was synonymous with videogaming, but it could be argued that the word 'PlayStation' has now replaced that.

HL: I wouldn't agree. I think right now if you take a look at this hardware cycle you will see that PlayStation has about 60% and we have around 40% of the market. We're halfway through this cycle. We're watching Sony's marketshare go down and our marketshare go up. There's no question in my mind that this is far from over. I suspect that when all the dust settles and the last PlayStations and N64s have been sold, it's going to be a 50/50 marketshare split. That is not a market in which Sony is predominant, at least that's not the way I envision it.



an audience with....

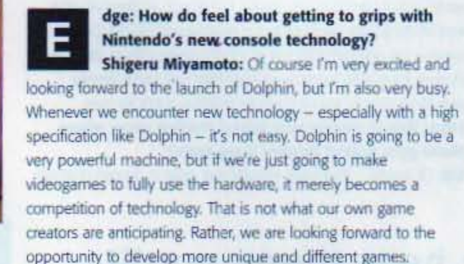
shigeru miyamoto

Journos who doubled and tripled up for a few minutes of his time at ECTS found **Shigeru Miyamoto** older and responsible than they might have expected from his *Mario*-man image. **Edge** took the opportunity to see how Nintendo's head of game development is handling the transition to Dolphin, where he sees his future, and whether gamers will ever see Mario battle Donkey Kong again...



Edge: How do feel about getting to grips with Nintendo's new console technology?

Shigeru Miyamoto: Of course I'm very excited and looking forward to the launch of Dolphin, but I'm also very busy. Whenever we encounter new technology – especially with a high specification like Dolphin – it's not easy. Dolphin is going to be a very powerful machine, but if we're just going to make videogames to fully use the hardware, it merely becomes a competition of technology. That is not what our own game creators are anticipating. Rather, we are looking forward to the opportunity to develop more unique and different games.



Edge: The step from 16bit to 32- and 64bit was most obvious in the jump from two to three dimensions. What sort of jump should be expected with Dolphin?

SM: It was easy to notice the transition from 2D to 3D. I don't think Dolphin will present that kind of clear transition from one generation to another. The N64 was a 3D machine and Dolphin is, of course, also a 3D machine. But I have to admit that, while the N64 didn't have the ability to realise the perfect 3D world, Dolphin is going to do so. In other words, it's like the transition from NES to Super NES. It's an upgraded version of a similar format. So when it comes to the creative side, I think it's a stage along the same path that we are working on right now. Having said that, I think we can widen the uniqueness and give more routes for the videogame creator to make videogames with more new ideas. In the past, on the N64, developers faced some difficulties creating 3D pictures. Now they are going to find it pretty easy, so they will have more spare time and resources available to devote to the creation of more unique ideas in Dolphin games. I hope that Dolphin succeeds through creative new ideas rather than the creativity of new technology.

Edge: How will the shift to DVD change the picture?

SM: With optical media available, it's going to present thirdparty developers and other publishers with the opportunity to invest in our DVD system with much more ease. I think it is going to present a good business model. ▶



Edge: What other technologies are you looking forward to working with?

SM: Already we have made announcements that in Japan we are going to link the Game Boy Color with cellphones. Also we are working on the 64DD in Japan on something that could be compared to Internet gaming. Those are the areas I'm working on in software development right now.

Edge: Have you come up with any new game concepts derived from new technologies such as connectivity?

SM: Unfortunately, we are not in a position to tell you anything right now because if I tell you something then that's going to be seen by our competitors! Seriously, it's going to be the idea that counts in this kind of new business. So what we have to do between now and the launch is to keep strict confidentiality among ourselves. I'm talking about concepts which, once you hear them, you'll think, 'Oh yeah, that's a great new idea, I can do that', but until you hear it, you'll never even think of it. That's the kind of concept I'm working on.

Edge: Do current Internet games running on networked PCs hold much interest for you?

SM: Actually, I don't use PCs very often and in fact I'm not even getting the chance to play videogames very much myself. When I use the Internet, it's just for business purposes. But of course, many of the game designers in our department are monitoring what is happening in the Internet field when it comes to videogames. If you just focus on avid personal computer game users it should be very interesting and the market should grow. But our market is much larger than that of PC users. Last week we had the Nintendo Spaceworld '99 in Tokyo. There were many, many parents and children coming together and enjoying the show, and that is the big market we're talking about. I don't think that the Internet games can appeal to that mass audience.

Edge: How do you get the best out of the very large teams you require to make games nowadays?

SM: When I come to think about it I have to tell you I really don't know. But the way I work is like this. I talk to many different game directors and designers about many very different game ideas and each of these teams or directors then starts working on different experiments. At some point during the game development I meet with them again to discuss what's going on and again we have talks so that we can put everything together into one game. Those are the steps we always take.





Edge: Where do you get the inspiration for those ideas?

SM: Mostly when I'm making a game and I encounter some troubles – that is the time when I get inspiration. When we are doing some little experiments for the programming we can think about those ideas. It's like there are ideas around here [motions about his head] not in a good shape, and then I try to think about how we should convey them to the game users: what would be the most recognisable way for people to appreciate the idea? Then I shape it into some kind of concrete game idea. As an example of these sorts of ideas, there are many games nowadays which require you to play for 40 hours. I think it's good when you notice after 40 hours that 'Oh yes, I've played 40 hours'. But if you think from the beginning you've got to play for 40 hours, that might not seem like such a good idea. So I'm thinking right now that maybe I should work on some different unique games which don't ever require you to think you'll be playing for some specific time period.

Edge: Have you dreamt up any new characters to join Mario, Zelda and Donkey Kong on Dolphin?

SM: [Laughs and points to the **Edge** cover that has been staring up at him throughout the interview] Sonic, how about Sonic?

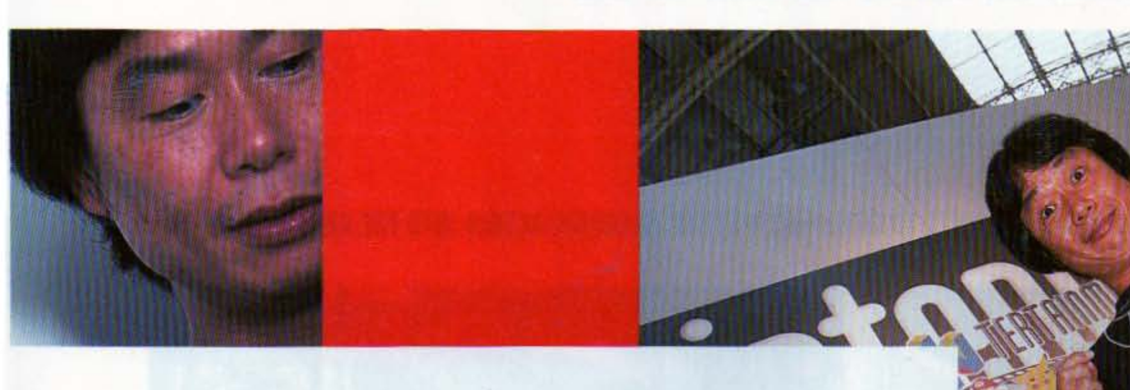
Edge: Ah. Erm, yes. Sorry about that.

SM: [Laughs] It's okay, Mr Naka is my friend. I'm the kind of game designer who tries to make the game system first and only decides at the end what sort of game character should fit into the world of that particular new game. I have not yet decided what kind of characters would have the most appeal on the Dolphin system. But whether it be me or other creators, Mario, Zelda and Donkey Kong have become so important that some games should be created to use them on Dolphin, that's for sure.

Edge: Should gamers ever expect another game where Mario goes against Donkey Kong again?

SM: Of course – they have already met again in *Smash Brothers*.

"We have concepts which, once you hear them, you'll think, 'Oh yeah, that's a great new idea, I can do that', but until you hear it, you'll never even think of it"



But let me think about it. [Long pause] Yes!

Edge: What about Luigi? As Mario's brother, will he ever fulfil his historic potential?

SM: Yes, I think Luigi will make an appearance in the near future because there are many staff members at Nintendo who wish to see Luigi get more of the spotlight.

Edge: With multiplayer games so popular on the N64, are you interested in creating a version of *Mario* or even *Zelda* for two or more players?

SM: Yes, I really appreciate the fact that the fourplayer mode is enjoyed so much by the N64 users. I'm very interested in those games. At Nintendo Spaceworld it was fourplayer games that attracted most attention, and I think it's becoming a core of N64 games. I think it's very important that some people are playing games together. For the creators, this means not only making games and trying to convey some messages in them, but also thinking about how different people make use of the information we have provided. I think that's important.

Edge: Your games have all been strongly character based, whereas in the west there has been a trend towards firstperson games. Any plans to explore that area?

SM: Yes, I am interested in making firstperson-viewpoint games. Rare's *GoldenEye* game is already a good game with a firstperson viewpoint. I'm almost of the opinion that my style of making small characters on the screen appear and go here and there, it may be old fashioned by now.

Edge: Another hugely successful concept has been *Pokémon*. Do you think you can take this style of game further in future titles?

SM: Yeah, *Pokémon* is very unique. I was the producer of *Pokémon* myself and from the very beginning we were thinking of incorporating so many different characters. Pikachu, for example, just happened to become the main character for many people. It was not intended to be so when were creating the game. Many people are thinking of making *Pokémon*-type games but I don't think that in terms of the business we should make too many *Pokémon*-type games ourselves. The success of *Pokémon* depends on the very unique features of the game system. You are trading your character with your friends. What you get from your friends is not the character you have created but the one your friends have trained. You are going to see something quite different from the one you have trained. That's the interesting point about it and that kind of thing is maybe what we should explore more. Because of the uniqueness of videogames we can create many different characters.

Edge: It's 20 years since you first began making games with Nintendo. Will you still be making games in another 20 years? If so, what do you expect them to look like?

SM: You know it is often said that a movie director can make movies until he or she dies [laughs], and it may be possible for me to continue to the end. But I know that I have the responsibility to train and nurture more young people to become better creators, directors and producers. For the maintenance and the expansion of the industry I've got to work [on that], I understand that, but at the same time I really want to make something of my own. When it comes to game development maybe I can't make such giant games any more, maybe it's more the compact games I should work on. In the end, 20 years from now, I don't know what kind of games I'll be working on. Probably Nintendo will continue to be the entertainment company and will have to appeal to mass audiences, but I believe that 20 years from now videogames will become very different.





OUT TRIGGER

SOFTWARE R&D2 ATTEMPTS TO DRAG FIRSTPERSON FRAGGING ACTION INTO THE ARCADE SECTOR

Developer: Sega
Release: Out now (Japan)
Origin: Japan



The influences from western shooters is clear, both in presentation and gameplay. Regardless, it's one of the best-looking Naomi games to date



Although *Out Trigger* is essentially a firstperson shooter, players can choose to adopt a thirdperson view when the situation demands it. It might prove useful





The control system makes use of a trackball (top) for looking around, and a joystick (above) for moving one of four onscreen characters

The firstperson shoot 'em up has never enjoyed success in the arcade to match its popularity in the home, perhaps because the genre was born and receives most attention in the States, a country no longer famous for innovative coin-ops. Now, however, a Japanese team, Sega's Software R&D2, is having a bash at the genre and giving it a little spin of its own.

In *Out Trigger* you control one of four anti-terrorist operatives who must blast their way through nine levels of firstperson action. Backgrounds take in, among other environs, Asian ruins, an observatory and a station, each littered with power-ups that will be instantly familiar (health, ammo, weapons, etc).

Interestingly, the finer points of firstperson shoot 'em up culture have not been lost on Sega's development team. Although players use a joystick to move, there's also a separate trackball control which is employed like a PC mouse to look around each area. It's even possible to select a thirdperson mode to view the scenery from a wider perspective. On top of this, *Out Trigger* is the first Naomi title to feature network support, allowing four machines to be linked for simultaneous multiplayer gaming. As each of the players takes on a role in the anti-terrorist squad, it's a co-operative rather than deathmatch-style romp. Software R&D2 has obviously enjoyed *Half-Life Team Fortress*.

With character and background design oriented towards western gamers, combined with a tinge of *Virtual-On*-style gameplay, *Out Trigger* could well capture both markets in one fell swoop. No Dreamcast conversion has been announced, but the built-in network possibilities of the game, together with its international appeal, makes it a guaranteed – and heavenly – prospect for the home.







The scenery is elaborate and totally destructible, providing an air of realism

DEAD OR ALIVE 2

TECMO REVAMPS ITS INNOVATIVE BEAT 'EM UP AND OUTSTRIPS THE COMPETITION... LITERALLY

Developer: **Tecmo**
Release: **Autumn '99 (Jap)**
Origin: **Japan**







Character detail and animation provide the main focus for the game's designers. Both have been improved radically since *DOA1*

Sex and violence have always proved a winning entertainment combination, a fact Tecmo took to heart with its '97 beat 'em up *Dead or Alive*. Not only did the game institute danger zones – areas around the periphery of the ring which would explode and blow players into the air if touched – but it also introduced female fighters with large, independently jiggling breasts. Both have made it into the sequel.

Dead or Alive 2 maintains the original's eccentricities: instead of just blocking, fighters can perform holds on the opponent, allowing an aggressive range of counter attacks, while the intuitive three-button system remains. The only big gameplay change is that fighters now automatically turn to face each other.

Character animation has improved and the large backgrounds are major crowd-pleasers, too. More importantly, most areas are dual-layered so characters can fall off a waterfall or tumble down a staircase and continue fighting at the bottom. This is a natural progression from the interactive arenas of *Powerstone*, suggesting that the traditional singlescreen, 2D plane-based fighting game is on the way out.

And... those ridiculously proportioned female fighters are now 'realistically' defined, even managing to muster lifelike facial expressions. It was perhaps this element more than any other that impressed gamers during a location test in Shinjuku arcades last month: *DOA2* attracted ¥68,200 of business compared to ¥6,100 for *KOF '99* during the same period.

The game was recently aired at the autumn Tokyo Game Show, where it attracted many plaudits, not all of whom were interesting in the title's blatantly risqué overtones. A Dreamcast conversion is a certainty, although Tecmo is believed to be also considering a PS2 version – if only in an attempt to deliver jiggling lumps of flesh with even more polys.



***Dead or Alive 2* retains the one-on-one gaming system of the original, with holds and throws figuring heavily in each character's fighting repertoire**





The background scenery is interesting and diverse, and – as in *Powerstone* – characters have a certain amount of interactive freedom. Many locations feature split levels so that fighters can fall down waterfalls and staircases, and then continue a bout

SUPER **PUNCH OUT!!**

One of the surprise stars among the first wave of Dreamcast titles, *Ready 2 Rumble Boxing* is one of the few pugilism titles to work convincingly – but that's chiefly because it simply expands upon a template once laid out by Nintendo...



One of *Super Punch Out!!*'s standout factors is that it doesn't look like a typical Nintendo title. Despite its critical acclaim, the game wasn't an enormous commercial success, which would account for the series not making the transition to 64bit

If great fighting games are difficult to create (beyond examples from Namco, Sega and Capcom, how many can you name?), then great boxing games are more difficult still, the sport's limited nuances throwing problems at developers from the word go. Nintendo's solution with the original *Punch Out!!* – a game whose influence can be traced through many successful titles since, from *Frank Bruno's Boxing* to *Ready 2 Rumble Boxing* – was to not take itself too seriously, to do it the Nintendo way, with accessibility and humour at the top of the agenda.

The original 1984 two-screen coin-op made the journey to the NES as *Mike Tyson's Punch Out!!*, but it wasn't until the format was revived on the SNES ten years later that the potential of such a simple premise was realised.

Because your fighter was capable of delivering a mere six different styles of punch, the action was immediately accessible. The game's depth came in the variety of fighters you came up against in its progressive weight divisions. From the pathetic opening opponent, Gabby Jay, to the increasingly dirty beggars who stood between you and victory, *SPO!!* was, like so many of yesteryear's games, as much a test of memory as it was dexterity, requiring you to learn the incoming combo flurries before countering.

Endearingly daft, supremely playable, insanely addictive stuff. A Dolphin update, please, NCL.









The high-kicking Dragon Chan (left) is the first opponent in the game to throw Queensbury rules out of the window, although further adversaries headbutt you and even spit in your eye. Landing a KO punch (above) is supremely satisfying

Manufacturer: Nintendo | 1994 | Developer: In-house | SNES

EDGEVIEW

The videogame world never stands still, riding the breaking wave of advancing technology. In this regular column Edge puts the industry's progress in perspective with a look at yesteryear's headlines: five years ago this month



Edge issue 14, November 1994



The first demonstration of 'Ultra 64' technology in the form of Midway's *Cruis'n USA*

Once upon a time, an average issue of **Edge** clocked in at around the 100-page mark and, in the case of this particular issue, carried three reviews. **E**14 was more focused on news content, and it had good reason: new consoles from Sega and Sony were but a few months from Japanese release, SNK was introducing a CD-driven version of its cult Neo-Geo console, 3DO was (apparently) making headway with its Bulldog format, and Nintendo was beginning to showcase its N64 technology from the springboard that was Midway's *Cruis'n USA* coin-op.

But it was a time of doubt. Philips' CD-i was faltering further, and most game developers seemed content to use the extra storage space afforded by the CD revolution to deliver dull cinematic sequence upon dull cinematic sequence.

A report from 1994's autumn ECTS (at a time when the event ran twice a year) included a lukewarm reception to Sega's 32X, and praise for Sony, which debuted its PlayStation hardware at a separate off-site presentation. It was just a shame **Edge** didn't see fit to cut through Sony's smoke-and-mirrors tactics of showing prerendered sequences instead of realtime content. Doh.









Clockwise from top left: SNK prepares its second stab at the console market; Edge takes a trip to France; *Doom II*, which fared better than its 7/10-earning precursor; *Aliens Vs Predator*, a weak Jaguar title

Did they really say that?

"There appears to be some confusion between Saturn and 32X, but that's something they can probably sort out. Sega are an important player" – LucasArts president **Randy Komisar**

Did Edge really say that?

'Despite [using less polygons than the coin-op], it's likely that *Virtua Fighter* devotees will find it hard to tell the difference between the arcade original and the [Saturn] version'

Testscreens (and ratings)

Doom II (PC; 9/10), *Inferno* (PC; 8/10), *Alien Vs Predator* (Jaguar; 4/10),

PIXELPERFECT

Every gamer has occasional moments of sparkling excitement, be it the first time *Speedball* booted up, or completing *Sabrewulf*. Here, Psygnosis' Nicky Westcott, one of the creatives behind the *Wipeout* series, remembers a Taito classic

Okay, its a big cliché, but it has got to be *Space Invaders*. Years ago, on a family holiday, we stopped for breakfast in a greasy café in Porstmouth, and in the corner there was a *Space Invaders* cabinet.

I'd never seen one before, so I sat facing away from it because I thought the furry invaders on the side had pretty damn big legs and they looked scary. I also wasn't altogether sure what the machine was, so I didn't dare peek inside! A couple of years later our home was invaded by an Atari 2600. It was our first computer game – well, after a Binatone *Pong* clone – and we had *Space Invaders* to go with it. So now the mystery of the furry monsters on the cabinet was solved! I couldn't get on with *Combat*, the game that came with the 2600, because of the crazy way everything went off one side of the screen and came back on the other – it just made me feel sick. My sister loved *Chopper Command* and used to force me to play it in twoplayer mode with her, but I just loved *Space Invaders*. I couldn't get enough of it, even though I was pretty crap at it, really. I've still got the same Atari 2600 and *Space Invaders* at home now. Ahhh."





Westcott plumps for a showcase of 'scary, big-legged' alien invaders





Pioneer IS System

■ *£450 ■ Contact 0753 789 789

It may look like a boy racer's high-fidelity wet dream, but the chrome-plated IS system hides a more than reasonable system. For your 450 notes you get a vertically loading CD player, MD recorder, RDS tuner and two less-than-subtle speakers. In styling terms, it's a bit odd, looking like something a Doctor Who designer may have thought hi-fi would look like in the near future. Unfortunately, none of the separate units actually match each other, and in an obvious attempt to look groovy Pioneer has smothered the system with more buttons than a Cadbury factory.

All well and good, until you actually try to work out how to do something – lose the manual and you're in a steaming pile of trouble. That aside, the IS does win favour in the way it sounds. OK, this isn't going to win a place in a serious stereophile's heart, but it does handle the treble remarkably well and, as you'd expect, thuds out the bass like nobody's business.

Hitachi VT-FX880E Commercial Advance VCR

■ *£320 ■ Contact 0181 849 2000

You're watching the Bond flick you recorded off ITV the other night and just as Roger Moore is about to raise that eyebrow, wham, it's a commercial break. Dilemma time. Do you a) wait for the likes of Clare Rayner to wibble on about the merits of wings before heading back into 007 heaven, or b) reach for the remote control to whizz through the annoying interruption? With the new Hitachi VT-FX88OE Commercial Advance VCR there's no need to worry, because as soon as the recorder's Tape Navigation system identifies the fact that the ads have started it will fast forward itself until the programme starts again. Hardly a standard feature in the world of VCRs.

So it offers a great gimmick, but how does the unit itself measure up? Well, it's a VCR, isn't it? Hardly cutting-edge technology: average picture, average sound, and not much else to raise it above its brethren. Except, that is, for the eradication of Clare Rayner. Joy.

* These are typical High Street prices, accurate at time of going to press. Manufacturers are no longer obliged to provide recommended retail prices on certain consumer electronics products.





Olympus V90 Voice Recorder

■ *£100 ■ Contact: 0800 072 0070

Quite possibly one of the sweetest little things you could hold in your hand this year, the Olympus is a poke in the eye for those who think personal recorders need to be blocky, black, ugly old things. As light as a feather – well, a feather that weighs 45g – the curvaceous Olympus V90 Voice Recorder allows you to record 33 minutes of your babble in standard mode, or a whopping 90 in longplay.

The V90 even lets you get your stuff sorted by dropping your notes into three folders, and to avoid ending up recording minutes of background noise, the Variable Control Voice Actuator kicks in only when speech is picked up. Sounding great and looking fantastic, the only bug in the shiny ointment is the fact that there's no way of transferring your memos.

Sharp PC-A250

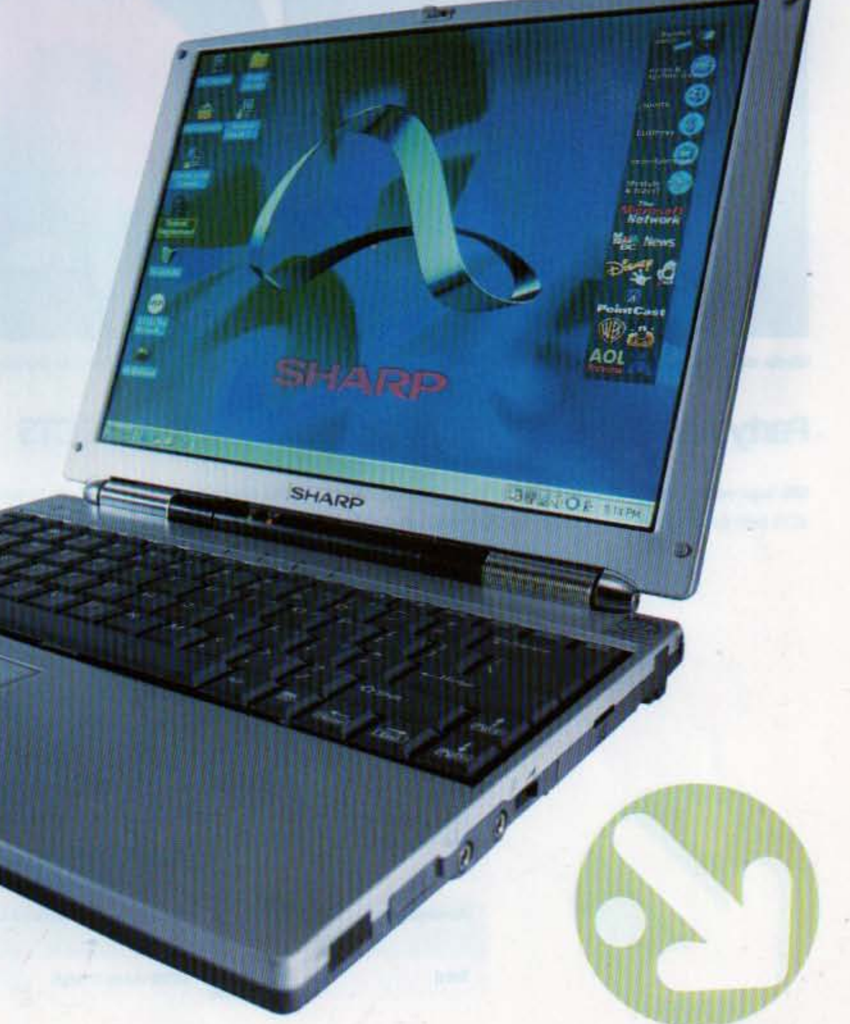
■ *£2,195 ■ Contact: 0800 262 958

Who would have thought, just a few short years ago, that the laptop would become as big a fashion accessory as an Armani suit or a Prada handbag? But now, in these post-Vaio days, computer manufacturers are falling over themselves to make notebooks as droolworthy as possible.

Welcome the Sharp PC-A250 to the catwalk, an oh-so-lovely silver magnesium notebook that somehow manages to cram in 64Mb of RAM, a 6.4Gb hard drive, and a 56K modem.

As you'd expect, you get all the ports and connectors you need – including serial, parallel, keyboard and mouse – plus an external floppy drive. There's no CD-ROM, however, although another £200 will buy you a similarly styled external drive.

Gripes? None, apart from the fact that the A250 wavers on the flimsy side, which is worrying for something that is likely to spend a fair part of its life bumping around within the confines of your bag.



Edge has attempted to state prices wherever possible, but for up-to-the-minute information, check adverts in the national press or contact your local consumer electronics dealer.



Sega gets off to dream US start

US: Much to Sega's delight, over 400,000 Dreamcasts flew off the shelves of American stores during its first week of sale, with many retailers remaining open throughout the night as D-Day, 9/9/99, approached. "Dreamcast will be the must-have item this Christmas," EB's president commented. "Our problem's going to be meeting the demand," agreed Sega's Peter Moore.

Media stars such as 'Baywatch' slab-of-meat Donna D'Errico and Mini Me Verne Troyer were on hand to introduce Sega's superconsole to the oh-so-wholesome face of American youth

Party wars: Sega and Sony go head to head at ECTS

UK: Sega may not have been able to afford to erect a stand at ECTS in Olympia, but it did splash out on a party to mark the impending arrival of its Dreamcast. Sony, meanwhile, held its annual ECTS bash the following evening. **Edge** naturally made it along to both soirees, and feels duty bound to report on this most debauched episode in the ongoing war between the two companies.

	Sega	Sony
Venue	The Commonwealth Institute. **7/10**	The Arches, Bishopsgate Goods Yard. **5/10**
Celeb count	Verne Troyer (aka Mini Me), some bird off the telly, one of the Gladiators. **5/10**	Two of the girls out of 'Bits'. **1/10**
Catering	As much free pop as you could handle, plus mini hot dogs, mini burgers, canapés, etc, delivered by wandering tray bearers. **5/10**	Exactly the same as Sega, Sony having hired the same catering company. Doh. **5/10**
Entertainment and attractions	The 'spectacle' of Troyer playing *Sega Rally 2* against the aforementioned TV bird. People on stilts. Paul Okenfold DJ set. **5/10**	Faithless live on stage. Bucking bull rodeo machine. Table football galore. Uninspired DJ set. **6/10**
Atmosphere	Drunken. Confused. Anticipant. Messy. **5/10**	Drunken. Sweaty. Sprawly. Messy. **4/10**
Total	**27/50** Victory to Sega!	**21/50** Maybe PS2 will help Sony next year.

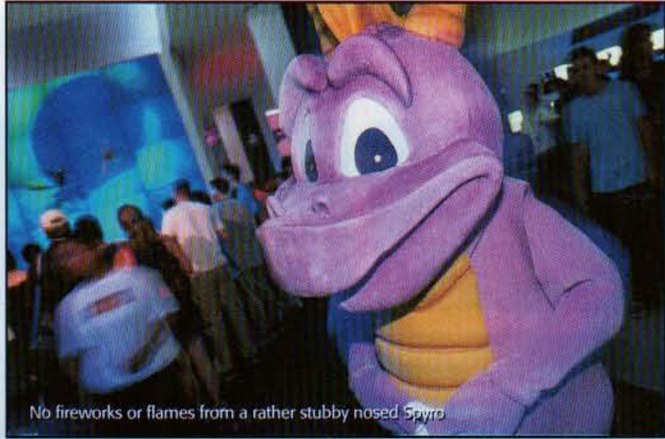




Exposing the underbelly of ECTS



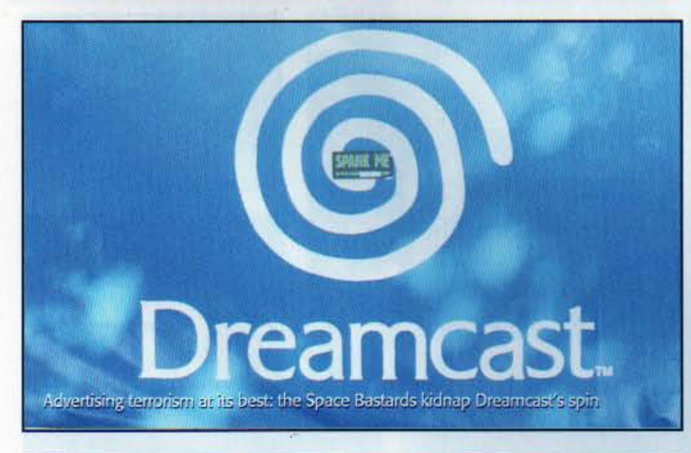
Linked to its 'Second Coming' tag, Virgin's area featured a crucified woman. Hmmm


No fireworks or flames from a rather stubby nosed Spyro


A Princess of Persia shows off her 3D

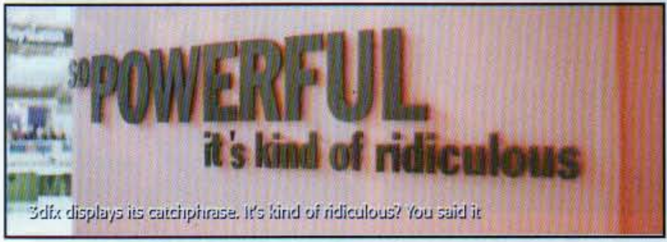

Attempting to kickstart the *Revolution*


Via DJs, Konami kept the beats flowing on its rather short-on-gameplay stand



Advertising terrorism at its best: the Space Bastards kidnap Dreamcast's spin


Unlike E3, lightguns were on display, but somehow a bloodbath was averted



3dfx displays its catchphrase. It's kind of ridiculous? You said it



A rather bored glimpse of the future





Sega unveils new character set

US: While the UK has to make do with two meagre Dreamcast ads, gamers in the States are experiencing their third wave of TV hype. Produced by the animation team behind 'Antz', the latest round of adverts focuses on game characters and actual ingame action. Taken from 'Opening Day', the camera swoops inside the console to show the 'brain' of the machine surrounded by over 40 game characters waiting to be released. Other ads focus specifically on sport games such as *NFL 2000* and *NBA 2000*, including animated real-life sportsmen. Funky.







Tails and Brian Grant, of the Portland Blazers, discuss the power of Dreamcast



Sonic for a day, Sega for a lifetime

US: As part of its prelaunch build up, Sega of America recently decided to organise a Sonic lookalike competition – or a 'Sonic Funatic', as the company touchingly described it. The rules were obvious: at the end of the day, the best-dressed Sonic would win a lifetime's supply of Sega equipment. Cynics might snicker at such a reward, but it was enough to attract plenty of hopefuls in blue-and-white attire, and everyone seemed to thoroughly enjoy the occasion. (Well, you either laugh or cry.)

A stranger event by far was Sega's 'Spud Dive'. Once again, the scenario was simplicity itself: a large tub full of watery mashed potato was presented for brave members of the public to jump into. It's hard to see it working in the UK, but if Sega Europe's marketing bod Mark Hartley leads the way, amazed **Edge** staffers won't be far behind.









The American public shows its devotion to the hedgehog by breaking out the blue bodypaint

Dreamcast cracked

Aus: It didn't take long for software importers to beat Sega's localisation lockout: this Australian mod unit (below) plugs into a VMS slot and will be available online soon, costing around A$75 (£30).







Gaming keeps on truckin'

US: The summer proved to be a time for travelling for Sega and id Software, with both companies deciding to take to the road to drum up support for Dreamcast and *Quake III: Arena* respectively.

Id's mode of transport, a 45-foot jet-black bus, proved to be the more fearsome of the two. Conversely, it was the less welcoming: gamers had to be 18 or over, or accompanied by a parent, to gain entry to the four *Quake III* test levels on offer inside.

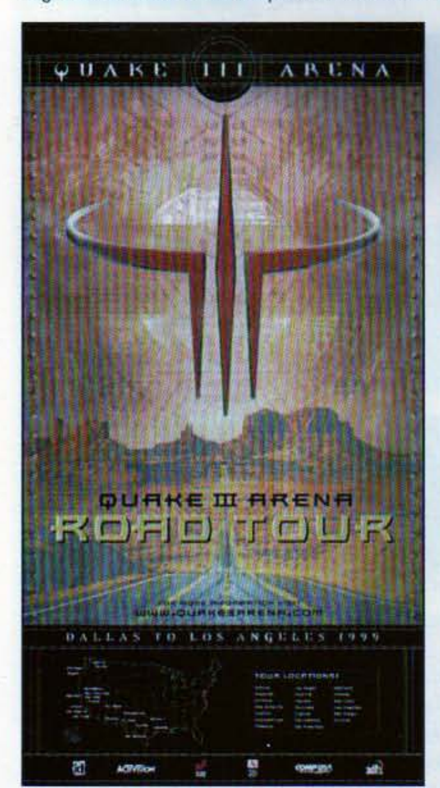
Sega chose two more modest vehicles with trailers attached, but bullishly labelled the event its Mobile Assault tour. Both are presently still in progress, with id finishing in November at the HQ of its publisher Activision. Sega, on the other hand, continues the marketing push into next year. Unfortunately, good planning means that there are no locations that both tour visits simultaneously. Bah.







Sega's Mobile Assault comes complete with a trailer and 'Space 1999'-style buggies, and it's been putting grins on gamers' faces across the US







Three months of mobile *Quake III* were initiated by id CEO Todd Hollenshead who cut the ribbon in Mesquite, Texas, during QuakeCon

Redesigning the Boy

UK: James Offredi of Enfield is the winner of issue 74's customise-a-Game Boy competition. **Edge** will follow his progress as he enters the national final of the competition to be held in October.









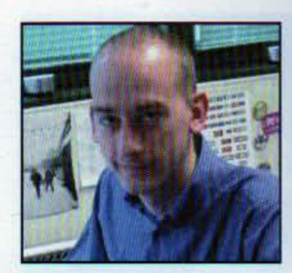
Come and get us!

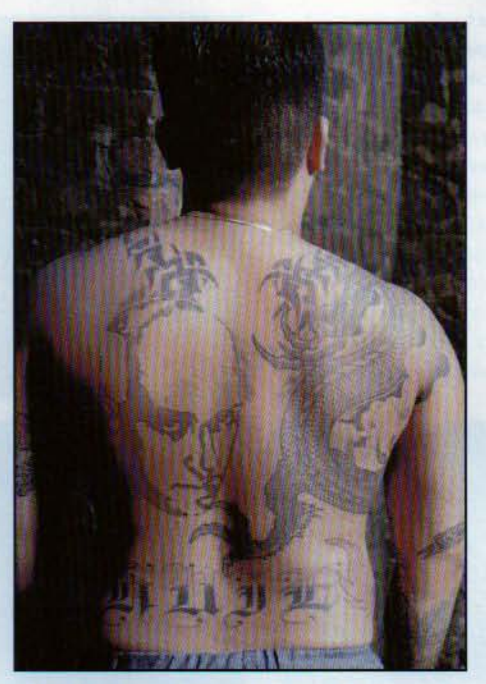
UK: ELSPA raids on unscrupulous software piracy outfits are now as common as crap pop music as the organisation continues to ramp up its drive towards eradicating the seamier side of the industry, but it must rarely have easier pickings than its recent swoop at ECTS. Gamars, a company specialising in PlayStation add-ons that allow users to watch Video CDs and, yes, play pirate software, was proudly displaying its wares from a small booth at the show – until, that is, having taken advice from police, an ELSPA unit confiscated the company's entire stock (below). And piracy used to be such a clandestine undertaking…



I've got you on to my skin

US: You may have seen some particularly dedicated videogame fans paying good money to get their torsos emblazoned with characters such as Sonic, but here's something you *won't* have seen before – a guy with a tattoo of a videogame *producer*. The individual in question is one of the gang members who assisted in promotional work on *GTA2*, and the tattoo is of DMA Design's Colin MacDonald. Now *that's* fandom.





The modest MacDonald (above left) has received the mono-reproduction-on-human-flesh treatment

And the beat goes on (and on)









(Main) The ultimate MSX setup? Probably. *Tansu Tansu Revolution* (right): fan coding at its extreme

Japan: It famously flopped in the west, but the MSX home computer format is still in active use – around 15 years since its inception – among the hardcore coding fraternity in Japan, a fact perfectly illustrated by MSX Land, a convention recently held in Tokyo. Among the numerous setups on display (the most impressive of which showing off connectivity to a mobile phone, among myriad other devices), one especially inventive example played host to *Tansu Tansu Revolution*, a *Dance Dance Revolution* clone compatible with Konami's PlayStation mat. Imagine UK coders hooking Namco lightguns up to Sinclair QLs to put this in perspective.

DataStream



Amount of money Sony will spent on its Mental Wealth adverts in the UK: **£15m**
Amount of money Sony has promised to spend in the US, supporting the PlayStation brand: **$150m**
Number of copies of *Quake III* Activision expects to sell in three weeks of release: **1m**
Cost of one minute of advice from InfoGenie's new Dreamcast helpline: **£1.50**
Year-on-year rise in **Edge**'s ABC figure: **7%**
Combined turnover of all Scottish software companies in 1997: **£500m**
Percentage of US male gamers that earn more than $50,000 per year: **31%**
Percentage of US male population that earns more than $50,000 per year: **22%**
Predicted percentage of games revenue in Europe and the US that will be generated by consoles in 2003: **70%**
Predicted total worth of videogame market in Europe and the US in 2003: **$17bn**
Average age of US gamers: **26**
Ranking of T•HQ in Fortune's list of America's 100 Fastest-Growing Companies: **3**
Percentage of non-Japanese shareholders in NCL: **25%**
Total sales revenues generated by the American launch of Dreamcast: **$97,904,618**
Cost to Acclaim of developing *Shadow Man* for PC, N64 and PlayStation: **$6m**
Cost to Square of producing *Final Fantasy VIII*: **$40m**
Number of online players each of Sega of Japan's Dreamcast servers can handle: **1,000**
Number of Dreamcast servers Sega of Japan operates: **2**
Number of games at GDC 1999 whose production used at least one dedicated AI programmer: **60%**
Average percentage of total CPU power allocated to AI: **10%**
Number of CDs that Konami's dating simulation *Tokimeki Memorial 2* is spread over: **5**
Percentage of US PC gamers who are female: **43%**
Percentage of console software that is purchased by women in the US: **51%**









LEFTFIELD
Rhythm And Stealth
(Sony)

It was back in 1996 that Leftfield released their epic 'Leftism' album, throwing together techno and dub. Since then Neil Barnes and Paul Daley have ditched many a track in their drive for the follow-up. But its final arrival sees their vision marked out as a used weapon. Maybe it's the fact that the two best tracks, the single 'Afrika Shok' and Guinness ad 'Phat Planet', have already been exposed that reduces the overall impact. Which it isn't to say that the remaining tracks aren't great, merely that the album feels a little blunted.

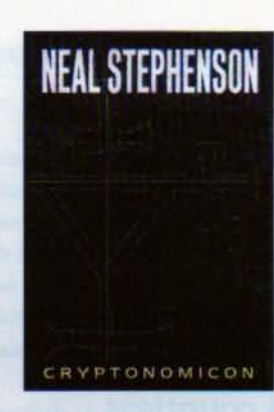
ALL SEEING I
Pickled Eggs & Sherbert
(London)

One of the strangest combos of the year, All Seeing I are a fine example of the tail wagging the dog. Three no-hopers from Sheffield, they have managed to craft a striking record thanks to their home-town heroes. The result sounds something like cabaret meets disco. Crooner Tony Christie leads the charge with 'Walk Like A Panther' while Jarvis Cocker and Human League's Phil Oakey get into the spirit of things. The barbed tongue of Babybird's Stephen Jones also makes a welcome appearance.



YOSHINORI SUNAHARA
Pan Am
(Bungalow)

While it's unclear whether or not Japan really is the most experimental of all nations, its musicians certainly work to few rules. Enter Yoshinori Sunahara and his Tokyo underground airport campaign. Obsessed with the concept of flight, his latest album draws languid inspiration from the defunct carrier Pan Am. Sometimes over-easy but never less than truly groovy, 'Pan Am' is one smooth album with a dash of fantastic beats. They may eschew convention, but the Japanese know how to lounge.



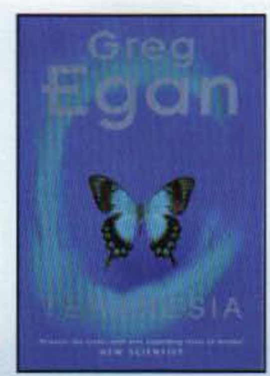
Author: **Neal Stephenson**
Publisher: **Avon (US)**
ISBN: **0 380 97346 4**

CRYPTONOMICON

Although not yet out in the UK, it's well worth tracking down Neal Stephenson's latest thought-provoking epic. As with previous works such as *Snow Crash* and *A Diamond Age*, his strengths have always included a deep understanding of technical issues meshed with addictive plots, and *Cryptonomicon* ranks as one of his best. The easiest way to describe it is as a cross between Thomas Pynchon's *Gravity's Rainbow*, Joseph Heller's *Catch 22*, and James Flint's *Habitus*. Yes, it's funny, surreal, clever, very cool and thankfully avoids the well-worn cabalistic cliques of other codebreaking novels. Stephenson also recently revealed that it marks the start of an ongoing series based on codes, too.

Most of the action takes place during WWII, where the storylines of three of the main characters are carefully twisted together. Lawrence Waterhouse breaks the Enigma code; Bobby Shaftoe leads a commando team which attempts to persuade the Germans that Enigma hasn't been broken; while Goto Dengo builds an underground storage facility for gold bars stolen by the Japanese army. Forty-five years later, but simultaneously arranged in the text, Shaftoe's son and Waterhouse's grandson play out similar roles to their forebears, only this time the stakes involve the future of commercial encryption and the underpinning of a global electronic money system.

While it weighs in at over 900 pages including appendices, *Cryptonomicon* reads like a short story. In short, a masterpiece. Go get it.



Author: **Greg Egan**
Publisher: **Victor Gollancz**
ISBN: **0 57506 854**

TERANESIA

Science fiction has always thrived on simple concepts taken to extremes – it's hard to go wrong with time machines and robots. But too much science tends to weigh down the fiction side of the equation. It's a problem suffered by Greg Egan's clever book – its core being the possibilities of evolutionary behaviour. The basis of evolution may be straightforward survival of the fittest, but Egan's premise is a more complex mix of genetic theory.

The basic story is a good one, though. Living on an island, inhabited only by his small sister and his biologist parents, Prabir Suresh relies on the Internet for his information. It's idyllic until a civil war breaks out and a plane drops mines across the island, killing Prabir's parents.

Ten or so years later, history repeats as his sister Maddy joins a research expedition to return to the area where their parents died, in search of a mysterious genetic anomaly. Prabir follows her. And then the waves of biological gobbledygook start and hitherto-strong characters are ground down. It probably all means something, but you'll need a PhD in DNA to sort it out.







INTERNET
Site: American McGee's Alice
URL: www.alice.ea.com

One of the most intriguing titles to recently surface sees the infamous *Quake* level designer American McGee return to the gaming scene following his mysterious parting of ways with id. Loosely based on Lewis Carroll's *Alice in Wonderland* tales, McGee says the goal of the game will be to defeat the Queen of Hearts and return Wonderland to normal. Unsurprisingly, the overall atmosphere is said to be extremely dark and twisted, which could make it something of a novel title for EA, renowned as it is for avoiding the mature games market. But no matter how good the final game, its *Shockwaved* Website is one of the best, full of riddles, runes and sorcery.

VIEWPOINT

EXPRESS YOURSELF IN **EDGE** – WRITE TO: LETTERS, **EDGE**, 30 MONMOUTH STREET, BATH, BA1 2BW (email: edge@futurenet.co.uk)

So, here we are, almost ten years since I purchased an NTSC SNES due to lacklustre PAL conversions and the very latest all-singing, promise-everything console turns out to be nothing more than a false dawn – 56K modem, a 50/60Hz hardware option for those who can use it, etc, etc. At last, Euro gamers get the choice they were dreaming of (no pun intended). Or so we thought.

So, what's this then? A 33K modem, the usual cop-out PAL conversions replete with glorious 'widescreen-O-vision' and built-in bonus of the much envied realtime slow-motion effect – unless the developers see fit to incorporate a 50/60Hz option into the game itself! Dreamcast? Nightmare ensemble might more appropriate. Oh, and hang on, they've delayed the release for nearly a month – aren't you glad some big chainstore can get a little fatter off your deposit?

Now, as we Brits are finally realising that we're getting shafted for everything from consumer goods to cars, I can only hope that gamers vote with their wallets.

I'd been holding out for a PAL Dreamcast and all that was promised, if nothing else but to be safe in the knowledge that I could use its network capabilities with fellow Europeans. And, having played a friend's Japanese import in February, I was very much resigned to buying my very first piece of Sega hardware. Not any more.

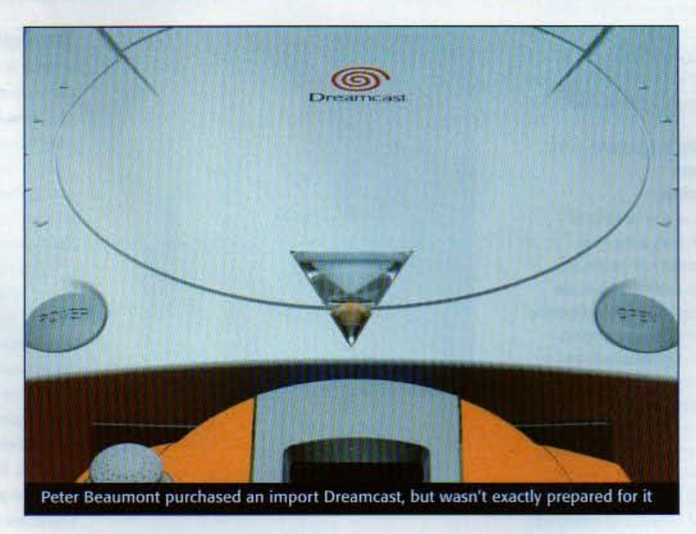
If these people continue to regard European gamers with contempt, then contempt is what they should get in return.

I had been holding out for a TNT2 Ultra card for my PC but decided to use the money for a Dreamcast instead – until now. I've enjoyed countless multiplayer experiences via my PC, and although the initial outlay is steep, I really don't envisage any half-arsed console coming close, so my decision has been made for me – by Sega itself.

'I've enjoyed countless multiplayer experiences via my PC, and although **the initial outlay is steep,** I really don't envision any **half-arsed** console coming close, so my decision has been made for me – **by Sega itself'**

It's a shame, because for someone like myself, who has never been a Sega devotee, I was sold on Dreamcast. Until such time as we are treated with the same respect as our NTSC cousins, I will not be parting with my cash, and with the imminent release of nVidia's GeForce GPU card, I think I may have just made the right decision.

Dean Penn,
via email



Peter Beaumont purchased an import Dreamcast, but wasn't exactly prepared for it

I wonder if Sega knows how daft it must now look? The Dreamcast launch has been the most anticipated event in the UK games business since the PlayStation – let's face it, the N64 was a damp squib. Every shop window in HMV, Virgin and EB is adorned with bumph – release dates, etc.

I co-run a games shop in Aberdeen and have taken numerous preorders for the thing. When Sega confirmed the delay yesterday it had two affects on our two prime customer groups. First, the hardcore gamers. Some promptly cancelled orders and mail-ordered import machines (not from us!). Others simply cancelled orders due to a lack of confidence in Sega's commitment to the UK/Europe market. These folk will spend the £199 on *Wipeout 3, Jet Force Gemini,* etc. The second group are the nouveau gamers – these are the folk that have been into games since the PlayStation shot to power. Their only experience of Sega is failure of the Saturn. These folk lap up *FIFA 2010, Tomb Raider,* etc.

The reaction in this group was mixed. Some, upset at the delay, asked if the price would come down due to the delay and wondered whether we would be giving away a free game as compensation, but generally they didn't care much either way. Their dads had paid the deposit so they were happy to wait.

Some other nouveau gamers had been interested in this new wonder machine but the delay has made many of them think twice. I had at least five turn their £40 deposit into *Speed Freaks* or *WWF Attitude*.

Has Sega forgotten the first Christmas on Saturn when *Sega Rally/VF2* didn't arrive until January? This was too late, as the majority of folk had joined the PlayStation bandwagon. The Saturn never recovered. Now the reason for the delay, we assume, is that the online bit is not ready? To be honest, the majority of folk who want a Dreamcast aren't bothered, they want *Sonic* and *Sega Rally 2,* and they want them now (as do I). So maybe Sega should think twice and launch on time and show a bit of commitment to the UK gamers who will make or break the console.

By the way, the press release which 'reconfirmed' the launch was crap. Folk are not stupid – it's delayed, end of story.

Terry Charleton,
via email

Reading last month's Dreamcast feature depressed me greatly. While I was happy to see

you wear your heart on your sleeve by dedicating the first page to why we should all buy DCs, your own confidence in the format wasn't echoed by the rest of the opinions in the article. Rather than giving it a fair chance, it appears that many are cynically writing off the platform for one reason and one reason only: PlayStation2.

Comments like those from Gary Penn – describing DC as "a snack to consume between PlayStations" – sum up the way in which Sony has singlehandedly changed the industry into one that celebrates installed userbases and quarterly turnover over originality and creativity. Never in my memory have publishers purposefully not developed for a new and powerful console because of something that is set to hit the shelves in a year or so's time – until now. Okay, so money is what keeps them all in business, but it used to be the case that games made money because they were great, not because they were on a specific machine. I can foresee a future in which the scene could be polarised completely, with an 'underground' Sega/Nintendo contingent not mixing with the Sony mainstream, which certainly can't be good for anyone.

Maybe this is just a whinge from a gamer who's getting a little long in the tooth, but don't you feel pangs of regret for the passing of days when quality not money drove people to write games?

I for one applaud everything that Sega is doing with DC. In this increasingly stale world the company is attempting to give gamers something truly different to choose if they want to, for the sake of games, not cash. I only hope enough people still retain enough of an opinion to make that choice.

James Sapwell, via email

Having read the letter from Mark Brooks in **E**76, I wondered whether he was enjoying his Dreamcast in black and white, or does he have the luxury of an NTSC TV? My Hong Kong version of the DC was my first foray into the import market and I didn't know what to expect. Let me sum up the problems that I encountered. In order to play games in colour it was essential to buy a PAL converter, which for me added another £70 to the overall cost. Second, the DC's analogue stick on the joypad is very clumsy when compared to the N64's and doesn't seem to have improved much for the European release of the console. Also, you'll need to buy a memory card as, unlike with N64, it is virtually essential for playing games like *Sonic Adventure*, which unfortunately doesn't save progress in the game.

Another downside to this option is the need to pay usually £50+ for the latest games. My last mistake was forking out something like £80 for *House of the Dead 2* (with gun). Also, the games coming through were indicating a heavy reliance by Sega on its own arcade conversions. I agree that games like *Power Stone*, *Get Bass!* and *Crazy Taxi* sound exciting, but I see this as only a repeat of the flaws in the Saturn's game lineup. The games that one can buy for this version of the DC are obviously only Japanese games, which mean that games like *Sonic Adventure* and, in particular, flight sims become frustrating experiences. In my view most of the games available look to be already overstretching the machine's resources, with *Sonic* and *Sega Rally 2* (in twoplayer mode, especially) being the biggest offenders, with problems with smoothness, pop-up and fogging regularly encountered.

When the PlayStation first came out it appeared to be way ahead of the PC and a few years had to pass until the average PC caught up. But I feel that this hasn't been the case with Nintendo's and Sega's latest offerings. I therefore conclude that the DC and even the N64 have been released too late and at a too high a price, so now I have chosen to sell my DC and eagerly await the launch of PlayStation2.

Peter Beaumont, via email

'**With all this talk** of next-generation consoles, it is sad to think that the **one defining factor** that will make or break the new wave of machines is **the casual gamer,** who does not buy a game based **on reviews**'

With all this talk of next-generation consoles, it is sad to think that the one defining factor that will make or break the new wave of machines is the casual gamer. These people do not buy a game on the reviews they see but on the advertising it receives and in what magazines it is seen in.

It will not matter to the casual gamer if a game gets ten out of ten in your magazine but whether or not it was in *FHM* and which supermodel it was seen next to.

The Dreamcast has already associated itself with many famous football teams and star personalities, but I doubt this will be enough. After seeing the NGPS I realise that Sony has abandoned the classic console look for something that resembles a hi-tech CD player.

Unlike Sega, Sony is not associated with games but with little wonders like the Mini Disc. This will be its selling point. The Dreamcast is a gaming machine; the NGPS will be a media centre. However, that is why I have already put down a full deposit on a Dreamcast – it is a console in every sense of the word for, dare I say, real gamers, while the NGPS is for people who want it to fit into their hi-tech lifestyle.

Just remember that until five years ago Sony hadn't even released its first console while Sega was about to bugger up its third.

Paddy Duncan, via email

Dreamcast day rolls ever nearer and I find myself getting more excited by the day. But perhaps it's time to think again about laying out £300 on a new console and a few games. I have a history of jumping on the wrong bandwagon. I had an Amstrad 464 when everyone else had a Speccy. I bought an Atari ST when everyone else bought Amigas. I went with Apple when the PC reigned supreme. I played with a Saturn and then an N64 when the PlayStation took off. I always back the wrong horse – or so it would seem. If only I had followed the rest of the sheep, but then I would have

missed some great games – *Marathon*, *Zelda* and *Virtua Fighter*, to name but a few.

Reading the 'Industry Litmus Test' in **E**76, you could be mistaken for thinking that industry insiders are just waiting for Sega to fail. Let's hope that it doesn't. Sega has contributed some very fine moments in videogaming history. Who can forget seeing their first *Sonic* race across the screen or their first 3D *Virtua Fighter* grace an arena?

It scares me to think that Sony may have already won the next-generation console battle with a press release. Perhaps the real danger to videogaming is not the casual gamer (as some have suggested) but in the minds and attitudes of softcos waiting for Sony to tell them how high to jump.

Mark Lynas, via email

Rarely has opinion on a new format been so divided. It's worth noting, though, that positive, pro-Sega reader feedback has outweighed negativity in **Edge**'s postbag. But then gamers' missives outweigh those of developers, who seem to be the least confident in Sega's endeavours, by a huge margin.

In reference to your 'Hooray for Hollywood' article [**E**76], it is worth considering that in absolute terms (not considering the vagaries of graphical quality), film is a far more technically limited medium of entertainment than games. It is these limitations that have inspired filmmakers to some of their greatest works. These include technical achievements such as Orson Welles' use of deep focus in 'Citizen Kane', to the exploitation of the viewer as a helpless but complicit voyeur in Michael Haneke's 'Funny Games'.

Film has always explored its own boundaries as a genre in a way that games find difficult. I think the reasons for this are simple. First, that of a limited audience: most people still prefer their entertainment passive rather than interactive, and the form is still limited mainly to younger males thus limiting experimentation in the genre. Second, there's the astonishing speed of technical advancement – film has taken 100 years to develop from its infancy, but films made in the '20s and '30s are still fully comprehensible to us today, as the basic form of Hollywood narrative has barely changed over the last 70-odd years. In comparison, in a third of the time the gaming world has moved from a single player chasing a perfect score in *Pac-Man* to a vast community of organised clan members battling it out every night over *TFC*.

'The basic form of Hollywood narrative has barely changed over the **last 70-odd years.** In a third of that time **gaming has moved** from one player chasing a perfect *Pac-Man* score to a vast community **of *TFC* clans'**

Gaming can also benefit from its technical limitations, like the PlayStation's graphical shortcomings forcing the still camera angles in *Resident Evil* which mimics the low-budget/high-impact methods of Romero. Let's hope that in the stampede for technical advancement some of these devices are not abandoned.

The next *Resident Evil*, for example, could benefit greatly from the use of proper cinematography, rather than a constantly wandering camera, as a result of a 'just because we can' mentality.

Sethb, via email

I am nearly 30 and have been playing games ever since *Manic Miner*, *Elite* and *Blue Meanies* (on the VIC-20, for God's sake) and I've read a few computer magazines over the years, but I've never felt the need to write to a letters page before. But having just read some of the comments in your September issue I just felt I had to say a few things.

Edge is an excellent magazine and a couple of my friends in the industry tell me it is the must-read for them and their friends, so why are so many of your readers so childishly intolerant and abusive of any game or console that happens not to be one of their favourites? It's getting to the level of pub argument about music: "I like Fatboy Slim." "No, he's shit, jazz is much better." "You're stupid, the Stones are the best." And so on.

Isn't it a shame that when the games industry is finally growing up, appealing to wider audiences than ever before and becoming a medium to be taken seriously, that we can still have people describing others as idiots for liking different games than themselves. I like *Tekken 3*, I like *Driver* (in fact I had to invent three new swearwords today when the police edged me up against a wall yet again); I don't like *V-Rally* and I don't like *G-Police*. It's what is called an opinion. And the last time I checked, we were all entitled to one.

Yes, sequels are lazy, but some of them manage to better the originals, while some of them don't. But because someone chooses to buy a sequel to a game that they liked – because they appreciated the gameplay, characters, style, etc – doesn't make them an idiot, merely someone with some money to spend on some entertainment.

We all wish every game could be groundbreaking, but has anyone been to the cinema recently? Listened to the music charts? Read books? Success breeds derivatives, and there's a lot of rubbish out there. That's why we read magazines like **Edge** – to get some idea of quality before buying. I'm sure there are people out there who think 'Batman and Robin' is a great film. I personally disagree, but I don't feel the need to write to a film magazine to lambast Warner Brothers and call these people silly names.

It's a shame you feel the need to print these letters. Did no one else have anything better to say that month? It's time to accept that (drum roll followed by shock) publishers and developers do things to make money like every other business in the world. Persil doesn't care about your clothes personally, but if putting a blue stripe in its tablets makes you buy the product then that's the way to go. Please can we keep some perspective?

Ashley Simmons, via email

Aw, come on. 'Batman and Robin' was a work of art. Pure, unadulterated genius. Fatboy Slim, though? Never heard of him.

An infinite polygon engine.

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Microscopically detailed simulation of an entire country.

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